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Founder and Editor: STANLEY SPOONER.

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EDITORIAL COMMENT.



Side-Winds

CORRESPONDENT of the Daily Mail raises a point of considerable interest and importance to present and future members of the Flying Services. He states that he approached two insurance companies with a view to securing a life policy for his son, who is an officer in the

R.F.C., but that both companies flatly declined tohave anything to do with the matter on account

of the risky nature of the occupation of Airmen a flying officer. He suggests that as the and insurance companies will not issue Life Assurance, policies, the right thing to be done is for the Government to introduce a

scheme of life insurance, open to officers of the two Flying Services. Broadly, but with reservations, we are inclined to agree with the views expressed by the correspondent whose letter we are discussing. It would be an admirable scheme on its merits if the Government decided to adopt the suggestion, so long as there was no question about its being a

purely business affair. To put it plainly, it would have to be based on the principle that premiums were accepted and risks paid as an act of grace only, because, however much we may deplore the dangers our aviators have to encounter and however also. we may have to deplore the loss of life inseparable from flying under modern war conditions, we have to squarely face the fact that as a purely business proposition the lives of our flying men are uninsurable, except at a premium rate which would make insurance practically impossible.

There is another aspect of the matter which the Daily Mail correspondent has ignored, which is that the Government already has in operation one of the best possible insurance schemes, one which has the great merit of costing nothing to the assured. We refer to the pension scheme, under which the disabled officer receives what is not ungenerous treatment, especially when we compare it with the treatment accorded to the officers of the fighting forces of other countries, and under which the dependents of officers who are killed on service are at least put beyond actual want. It seems to us that if any change is found to be desirable it might take the form of an increased pension in consideration of the payment of a premium by the officer, though, except on the lines of broad principle, we are not inclined to view with any great favour the entry of the Government into the insurance business, whether life or any other These are matters of pure commerce, and should, generally speaking, be left to the insurance companies, which are only too willing to accept anything in the way of a legitimate business risk. When we ask the Government to accept risks that are declined in the ordinary way of business we are asking for something which ceases to be insurance as we understand it and becomes something else.

It would be a mistake to associate the Our intense activity of our airmen behind Aerial the enemy's lines with an intention to Activities. effect reprisals on the Germans in return for their raids on open, undefended towns in England. On the contrary, they are simply a part of the ordinary routine of the war in the shape it has taken on, and are, in all probability, merely antecedent to great operations in the areas concerned. As a matter of fact, the policy of actual reprisals has



not even yet, in spite of the almost universal popular demand for action, been accepted by our own or the French Government. So far as the actual policy of reprisals is concerned we have already expressed our opinions at considerable length, so that there is no particular need for us to again traverse ground which has been adequately covered. The whole matter, however, is summed up in a very few words. If and when we have enough machines of the proper types to carry out the essential work of the armies in the field and at the same time to carry the war into the enemy's country, then by all means let us take it to him in both hands, so to say. But we must never lose our sense of proportion to such an extent as to result in the starvation of the field armies in the matter of fighting and artillery observation machines in order to carry out raids on German towns, the effect of which would be mainly moral. Let it not be thought that we are against the raiding of German towns. Quite the contrary, we are absolutely convinced that in a policy of counter raids lies our best method of defence against enemy raids on London and other of our open towns and cities, but we have to regard the situation in the light of cold reason. If we have not a sufficient or only a barely sufficient number of single-seater fighters and of observation machines, then we must concentrate for the time being on their production and let the heavy bomb-droppers go for the time being. is to say, we must confine our efforts in the latter direction to the provision of enough of the type to ensure the proper carrying out of raids on the German aerodromes, ammunition dumps and his communications and leave the true air offensive against Germany itself for later on, when the co-operation of our American Allies shall have become really effective and we can take the air war into Germany in real earnest. We agree that if our resources had been properly co-ordinated from the first we should have had sufficient machines of every type long ere this, but that is another story. The principal thing we have to consider is that we do not possess them, and we have therefore to compromise on the operations which are absolutely essential, leaving those which are desirable but not so essential until we have the advantage of the full co-operation of America.

We have received from the Hon. A Memorial Secretary of the Goodden Memorial Fund at the R.A.F. an interim report Major of the Committee entrusted with its administration. We are much gratified to learn that it is proposed to perpetuate the memory of a gallant officer, who gave his life for the country just as much as though he had actually been killed in face of the enemy, by the institution of an educational scheme for the better technical training of youths employed in aircraft production, special reference to those actually employed at the The necessary funds have been invested in the names of three trustees—Lieut.-Col. Henry Fowler, Superintendent of the R.A.F.; Major H. Grinsted, and Major G. B. Turner—so that a wise administration is assured. In addition, an educational sub-committee has been formed to attend to details. This sub-committee has considered the whole question of technical education upon an entirely new basis and will take the full responsibility for the future administration of the Goodden prizes and scholarships in the future.

We are informed that the subscription list of the fund is to remain open indefinitely, so that there is still time for the many personal friends of the late Major Goodden to do their bit towards the perpetuation of his memory, particularly as the funds raised and to be collected are to be applied in so eminently sensible a manner. We commend the fund to those of our readers who are interested in the cause of more thorough technical education. Those who care to send along a subscription should address the Hon. Treasurer, Mr. C. L. Cleburne, at the R.A.F.

Under this heading an interesting "Call in correspondence has been running its the Engineers." course in the columns of a morning contemporary. The initial letter which set the matter going was in the nature of an appeal to the Government to call in all the best engineering talent of the country with a view to speedily ending the war, by the adoption of "engineering methods" as distinct from what its writer describes as "the proved and disastrous failure of stagnant naval or military methods." The principal points of argument advanced were six in number, and are well worth quoting as a basis for discussion. They were as follows:

"I. The principal base of both enemy aircraft for raids on England and for submarines is admittedly Zeebrugge. "2. The destruction of Zeebrugge—and, for that matter, of Ostend also—is a problem of marine engineering, and not

a naval operation at all in the accepted sense.

"3. The enemy minefields in front of these Belgian ports and also at the entrance to the Baltic can be destroyed by engineering methods without undue risk to any of our naval units-the latter would only destroy themselves by adopting Dardanelles tactics on the minefields.

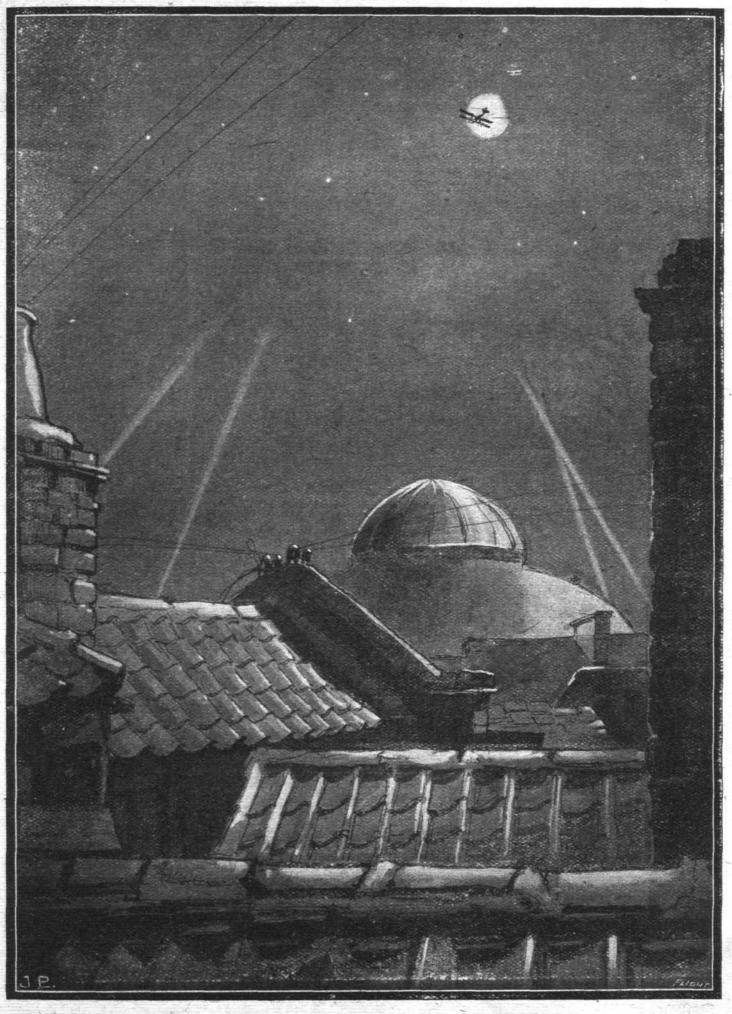
4. Engineering brains outside both Services could produce an effective and economical scheme of operations to obliterate Zeebrugge and its minefields from the face of the earth (or

the sea) 5. Both the Admiralty Board of Invention and Research and the Munitions Inventions Board of the Ministry of Munitions have proved themselves helplessly incompetent in this matter, which is one of life and death to the nation.

"6. Notwithstanding this week's disgraceful record of successful enemy air raids in England and increased losses to British shipping at sea, nothing will happen (except an indefinite repetition of both air and submarine raids on an even greater scale) until an engineering war staff is formed with full powers to destroy the enemy by engineering methods as distinct from the proved and disastrous failures of stagnant naval or military methods.'

There is probably a good deal to be said for the broad point of view from which the letter is written, but we could rather wish the writer had not been possessed of the habit of cock-sureness which his dogmatic assertions display. It may be conceded that it is quite possible that the destruction of Zeebrugge and Ostend is a problem of marine engineering rather than a naval operation in the accepted sense. Equally, it may be that the clearing of the enemy minefields is a job for the engineer more than for the Navy. We say advisedly that these things may be, but we should prefer not to go to the length of dogmatising about the matter. There is just enough doubt about it all to impel us to think that the suggestion of an engineering war staff has something in it. After all, it has been conceded on all hands that this is in reality an engineers' war and, if that is admittedly so, there is certainly a good deal to be said for the employment of engineers to run its details. We are not by any means losing sight of the fact that the engineering brains of the country have been called in to assist in the solution of many of the





An impression of a moonlight air raid by Gotha bombers, from the brush of one who saw it. Several correspondents have, since the raid, written in regard to this subject and the engaging of the Gothas by British machines. Some of the public certainly cannot have realised the proportions of the Gotha when silhouetted against the moon under the conditions of the raid, particular reference to this latter point being made in an "Airism" in last week's issue of "FLIGHT."



problems of the war, but that is not quite the same thing as this correspondent of our contemporary is driving at. We quite see his point and can fully appreciate it. It is one thing for the engineer to be given a detail problem to solve along lines which are rigidly defined for him, but quite another for him to be told that there is a particular end to be achieved and a free hand accorded him to do the job in his own way. Let us take the analogy of the tanks, for example. The engineer in that case was told that what he had to produce was an armoured vehicle of definite design, which should be capable of carrying an armament of ten guns and be able to attain a speed of ten miles an hour over any sort of country. He did his job and did it well. But who knows what might have been the result if we had had a central engineering war staff and the proposition had been put somewhat as follows: "We have arrived at a state of comparative deadlock, when our infantry cannot go forward, except at the cost of casualties which we cannot afford for long. The character of the ground is so-and-so; the enemy's defensive organisation possesses so-and-so characteristics, which our own soldiers' methods cannot surmount. Can you evolve something that will enable us to overcome it?" It is possible, of course, that the engineer would have been as much at a loss to evolve a specific as the soldiers themselves, but on the other hand it is just as possible that by this time we might have had something to which the tanks would be, in the American vernacular, a mere circumstance.

Whatever the merits or demerits of the idea, the correspondence in question has at least started a new train of thought, and one which we think might with advantage be pursued by the War Cabinet. No harm can be done by a careful examination of the case for and against making of the war even more of an engineers' affair than it is now, and it is quite on the cards that much good might come of it.

The National Party and its Aims, Although "FLIGHT" necessarily has no politics, it is difficult to the point almost of impossibility for any organ of public opinion to refrain from the discussion of matters affecting the public weal in times such as those we

are passing through at present. When the famous manifesto announcing the formation of the new National Party was issued, we gave it our blessing simply on the grounds that it stood for a cleaner public life and for the elimination of those evil influences which have made party politics a by-word

among decent people.

It does seem to us that the new Party has a chance which is unique, if it will take it, of rallying to its banners the great and hitherto inarticulate middle-class. That class has been the patient hewer of wood and drawer of water for all the rest of the classes of society. It has been ground between the upper and the nether millstone for long enough. It has carried the greater proportion of the nation's burden and has been the ultimate victim of every species of class legislation for several generations. It is a class which has never asked for Utopian legislation and has never grumbled when such legislation has been passed in favour of others—it has paid up and endeavoured to look pleasant.

The time has come, however, when the great middle class intends to have a say in the affairs of the nation and to be no longer content to remain the milch cow of the community. If it will take it, the National Party has its opportunity. With a sane and sensible programme, clear of the taint of the professional politician and without those damnable features of "party" which have caused politics to stink in the nostrils of the better classes of the nation, we believe the great mass of the middle classes would rally to the new Party and we might enter upon a new

era of political life.





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A three-decker in % the hands of the enemy.—Another # view of the machine "standing" on its nose m which was re-produced in ** "FLIGHT" on ** page 920, Sepreproduce the m illustration exactly as it ap- man an man enemy news. paper, and it will be noticed that emphasis is laid upon the fact that the machine is **
"uninjured," which appears to be correct subject 😹 to the propeller 꽲 and very minor details.

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HONOURS.

Honours for the R.N.A.S.

It was announced in the London Gazette, on September 14th, that The King has been pleased to approve of the award of a Bar to the Distinguished Service Order to the

following Officer:

Flt.-Lt. (Act. Flt.-Comdr.) R. A. LITTLE, D.S.O., D.S.C., R.N.A.S.—For exceptional gallantry and skill in aerial fighting. On July 16th he-observed two Aviatiks flying low over the lines. He dived on the nearest one, firing a long over the lines. burst at very close range. The enemy machine dived straight away, and Flt.-Lt. Little followed him closely down to 500 ft., the enemy machine falling out of control. On July 20th, he attacked a D.F.W. After a short fight the enemy machine dived vertically. Its tail plane seemed to crumple up, and it was completely wrecked. On July 22nd, he attacked a D.F.W. Aviatik, and brought it down completely out of control. On July 27th, in company with another pilot, he attacked an Aviatik. After each had fired about 20 rounds, the enemy machine began to spin downwards. Flt.-Ltt. Little got close to it, and observed both the occupants lying back in the cock-pits, as if dead. The machine fell behind the enemy's lines, and was wrecked. Flt.-Lt. Little has shown remarkable courage and boldness in attacking enemy machines.

Distinguished Service Cross.

* Flt.-Lt. (Act. Flt.-Comdr.) R. J. Slade, R.N.A.S.—For his services during a bombing raid on Snelleghem Aerodrome on August 5th. He was attacked by an enemy machine when leaving the target. After firing about 30 rounds the hostile machine appeared to lose control and suddenly dived without

regaining it.

Flt.-Lt. (Act. Flt.-Comdr.) W. M. Alexander, R.N.A.S. On August 16th, he attacked at about 3,000 ft., two hostile scouts, one of which, after a short combat, fell completely out of control. On August 20th, while returning from patrol, he observed three enemy scouts. These he pursued until they turned to fight. One of the scouts he shot down completely out of control, and the remaining two dived away. On August 21st, while on an offensive patrol, he attacked and drove down completely out of control an enemy scout, which was attacking another member of his patrol. Flt.-Lt. Alexander has at all times shown the greatest bravery and determination.

Flt. Sub-Lt. C. P. O. BARTLETT, R.N.A.S.-For exceptionally good work on the occasion of a bombing raid on

Houttave Aerodrome on July 25th, 1917.

Bar to the D.S.C.

Flt.-Comdr. I. N. C. CLARKE, D.S.C., R.N.A.S.—For exceptionally good work on the occasion of a bombing raid on Houttave Aerodrome on July 25th, 1917. This officer has shown great skill and persistence in leading his flight on many occasions.

Distinguished Service Medal.

Air-Mech., 1st Gr., E. Darby, O.N. F.849; Air-Mech., 1st Gr., W. D. Sambrooke, O.N. F.6630.

The following officers have been mentioned in Despatches:-Flt.-Comdr. C. T. Freeman, D.S.C., R.N.A.S.; Flt.-Comdr. T. F. Le Mesurier, D.S.C., R.N.A.S.

The King has been pleased to approve of the award of the following honours, decorations, and medals to Officers and Men for services in action with enemy submarines:—

Distinguished Service Cross.

Flt.-Lt. (Actg. Flt.-Comdr.) O. A. BUTCHER, R.N.A.S.; Flt.-Lt. J. O. GALPIN, R.N.A.S.; Flt. Sub-Lt. C. L. Young, R.N.A.S.

Bar to the D.S.C.

Flt.-Lt. W. R. MACKENZIE, D.S.C., R.N.A.S.

Distinguished Service Medal.

Air-Mech., 1st Gr., H. L. Curtis, O.N. F.24994; Air-Mech. 2nd Gr., W. H. Grey, O.N. F.6068.

The following Officers and Men have been mentioned in despatches :

Flt.-Sub-Lt. S. E. BALL, R.N.A.S.; Flt. Sub-Lieut. A. T. Barker, R.N.A.S. Air-Mech., 2nd Gr., W. J. PRIEST, O.N. F.21948.

Foreign Decorations for R.N.A.S.

It was also announced, on September 14th, that the following decorations have been conferred by the Allied Powers on Officers and Men of the British Naval Forces for distinguished services rendered during the war :-

CONFERRED BY THE PRESIDENT OF THE FRENCH REPUBLIC.

LEGION OF HONOUR.

Officer.

Capt. C. L. Lambe, D.S.O., R.N.; Comdr. (Act. Capt.) J. Harvey, R.N.; Comdr. H. C. Halahan, D.S.O., R.N.

Chevalier.

Lt. A. W. L. Brewill, D.S.C., R.N.; Lt. D. C. G. Shoppee, D.S.C., R.N.; Sqdn. Comdr. F. K. Haskins, D.S.C., R.N.; Sqdn. Comdr. D. C. S. Evill, D.S.C., R.N.; Sqdn. Comdr. R. H. Mulock, D.S.O., R.N.A.S.

Honours for the R.F.C.

IT was announced in the London Gazette on September 17th that the King has been pleased to approve of the appointments of the following Officers to be Companions of the Distinguished Service Order in recognition of their gallantry and devotion to duty in the field :-

2nd Lt. (Temp. Capt.) W. C. CAMPBELL, M.C., R.F.C., S.R.-For conspicuous gallantry and devotion to duty on numerous occasions whilst on offensive patrols. displayed the greatest courage and skill in attacking enemy aircraft at close range, destroying some and driving others down out of control. He has proved himself to be a scout leader of the highest class, and has destroyed 12 hostile machines and two balloons, besides taking part in many By his fearother combats during the last three months. lessness and offensive spirit he has set a splendid example to all ranks.

Lt. (Temp. Capt.) W. J. C. Kennedy-Cochran-Patrick, M.C., Rif. Bde. and R.F.C.—For conspicuous gallantry and devotion to duty on numerous occasions in destroying and driving down hostile machines, frequently engaging the enemy with great dash and a fine offensive spirit when encountered in superior numbers. By his cool judgment and splendid fearlessness he has instilled confidence in all around him, his brilliant leadership being chiefly responsible for his

numerous successes.

2nd Lt. (Temp. Capt.) H. M. PROBYN, R. War. R. and R.F.C.—At a critical time when hostile infantry had penetrated our trenches, he went up in unfavourable weather and under heavy machine-gun and anti-aircraft fire from guns of heavy calibre, and managed to locate and report with complete accuracy the position and progress of the enemy. To do this he had to fly at a very low altitude, during which his machine was seriously damaged by enemy fire. The following day he carried out another daring and successful reconnaissance of the enemy's lines, bringing back informa-tion of the greatest value. He has already experienced a whole year's strenuous service flying, a fact which speaks for his gallantry and endurance on both of these particular occasions.

2nd Lt. A. S. Shepherd, M.C., R.F.C., S.R.-For conspicuous gallantry and devotion to duty on numerous occasions when engaged in combat with hostile aircraft. Though surrounded by enemy machines, he continued to fight for nearly an hour with the utmost gallantry and determination against two hostile formations, finally bringing down one of the enemy out of control. Within a month he brought down seven hostile machines completely out of control.

Lt. (Temp. Capt.) J. W. WOODHOUSE, M.C., R.F.C., S.R.-For conspicuous gallantry and devotion to duty in carrying out special missions by night, during which he has frequently been compelled to face very bad weather. In the course of numerous bombing expeditions by night he invariably descended to very low altitudes in order to use his machine gun against hostile troops on the roads. He has constantly set a very fine example.

The King has been pleased to award a Bar to the Military Cross to the undermentioned Officers :-

Bar to M.C.

T: Capt. C. M. Brisco-Owen, M.C., R.E.-For conspicuous gallantry and devotion to duty in making numerous daring reconnaissances of enemy wire and trenches at very low altitudes, during which he and his pilot constantly emptied their drums into the enemy trenches, undeterred by violent machine-gun fire. He secured information of the utmost value, which could not have been obtained by any other

means. (M.C. gazetted January 10th.)

Sec. Lt. (T. Capt.) A. G. Jones-Williams, M.C., Welsh R. (attd. R.F.C.).—For conspicious gallantry and devotion to duty when engaged in combat with hostile aircraft. On

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several occasions he attacked enemy formations although they were in superior numbers, fighting them in more than one instance single-handed, and showing the finest offensive spirit. He drove several machines down completely out of control, fighting until his ammunition was expended. gazetted July 18th, 1917.) Temp. Lt. L. F. JENK

Temp. Lt. L. F. Jenkin, M.C., Gen. List and R.F.C.— For conspicuous gallantry and devotion to duty in continually attacking hostile aircraft at close range, destroying some and driving others down out of control. and offensive spirit have at all times been admirable. (M.C.

gazetted August 16th, 1917.)
2nd Lt. A. P. F. RHYS-DAVIDS, M.C., R.F.C., S.R.-Whilst on offensive patrols, he has in all destroyed four enemy aircraft, and driven down many others out of control. all his combats his gallantry and skill have been most marked, and on one occasion he shot down an enemy pilot who had accounted for 29 Allied machines. His offensive spirit and initiative have set a magnificent example to all. (M.C. gazetted July 18th, 1917.)

The King has been pleased to confer the Military Cross on the following officers in recognition of their gallantry and

devotion to duty in the field :-

Temp. Lt. P. J. BARNETT, Gen. List and R.F.C .- For conspicuous gallantry and devotion to duty on many occasions, His reconnaissance work has been particularly daring and successful owing to the pluck and determination with which he has faced bad weather and attacks from hostile aircraft in order to obtain his information. 'He has taken part in 10 successful bomb raids, and his keenness on all occasions has

set a splendid example to others.

Lt. (Temp. Capt.) G. H. BOWMAN, R. War. R., S.R., and R.F.C.—He had taken part in many offensive patrols, which he led on 20 occasions, in the course of which four enemy aircraft were destroyed and 12 others driven down out of control. Although outnumbered by five to one on one occasion, he handled his patrol of four machines with such skill and gallantry that after a very severe fight he was able to withdraw them without loss, having destroyed at least two enemy machines and driven down one out of control. His fearlessness and fine offensive spirit have been a splendid example to

2nd Lt. (Temp. Capt.) K. L. CALDWELL, R.F.C., S.R.-For conspicuous gallantry and devotion to duty when leading offensive patrols. On one occasion he led a patrol of five machines against 12 hostile aircraft, all of which he drove down out of control. He has personally destroyed five hostile machines and has had over 50 contests in the air, in all of which he has displayed splendid skill and fearlessness, and has set an excellent example to his squadron.

2nd Lt. W. C. CAMBRAY, R.F.C.—For conspicuous gallantry and devotion to duty whilst acting as observer to offensive patrols. On four occasions at least he has shot down enemy scouts, and has also had numerous indecisive combats, in all

of which he has displayed the greatest gallantry

2nd Lt. (Temp. Capt.) A. J. M. CLARKE, Glouc. R., and R.F.C.—He has led 14 bomb raids, the majority of them against distant objectives, and his gallantry and skill have inspired the greatest confidence. Although continually heavily attacked by enemy aircraft, he has successfully inflicted considerable damage upon his opponents, as well as upon his objectives.

2nd Lt. (Temp. Capt.) A. CONINGHAM, R.F.C., S.R.-For conspicuous gallantry and devotion to duty in attacking enemy aircraft. On numerous occasions he has displayed great dash and a fine offensive spirit in engaging the enemy at close range,

and driving them down completely out of control.

2nd Lt. J. C. Currie, R.F.A., S.R., attd. R.F.C.—For conspicuous gallantry and devotion to duty when acting as observer to another officer. They faced a violent thunder-

storm, accompanied by a gale of wind and blinding rain, which had compelled all other machines to return to their aerodromes or to make forced landings, in order to locate the position of our infantry in the front line. This they successfully did, having spent 11 hours in the air under fearful conditions, and returned with an accurate and valuable report to headquarters.

(Temp. Capt.) F. FERNIHOUGH, R.F.A. and R.F.C. In artillery observation and patrol work he has continually distinguished himself by his fearlessness and determination to gain information, undeterred by hostile fire or adverse weather conditions, remaining unshaken through some very trying experiences, during one of which his machine was very badly hit and his observer's leg was shot away. He has furnished

information of the greatest value on numerous occasions.
2nd Lt. (Temp. Lt.) A. W. F. GLENNY, A.S.C., and R.F.C. For conspicuous gallantry and devotion to duty when in cooperation with our artillery. By dint of great perseverance, skill, and very gallant flying he has accomplished splendid work under very difficult circumstances. On one occasion, during a gale of wind, he successfully ranged three of our heavy batteries upon an enemy battery, which was completely obliterated. He has consistently set a very fine example to

his squadron.

2nd Lt. (Temp. Capt.) G. H. HOOPER, R.E., attd. R.F.C. When leading a patrol of four machines he attacked 10 enemy aircraft; during the engagement five of them were destroyed, two by himself. He had previously led a very successful night bombing attack on an aerodrome, in unfavourable weather, dropping bombs from a very low altitude, and doing a great amount of damage. He has invariably displayed great gallantry and skill when engaged in aerial combats.

Temp. 2nd Lt, W. J. Hodgson-Horrocks, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty as a balloon observer. Although under accurate hostile shell fire, he remained in observation in spite of both balloon and basket having been hit by shell splinters, locating the gun which was shelling him, and refusing to descend until darkness made observation impossible. A few moments after he had descended the balloon was brought down by a direct hit. He has always shown remarkable energy and determination whilst engaged in observing.
2nd Lt. (Temp. Lt.) C. A, Hoy, R.F.C.—When acting as

observer on offensive patrols, on four occasions he has shot down hostile scouts, displaying in every instance splendid

determination and a fine offensive spirit.

It was also announced on the same date that the King had been pleased to approve of the following rewards for distinguished services in the field.

Distinguished Service Order.

Major (Temp. Lt.-Col.) N. D. K. MacEwen, Arg. and Suth. Hrs. and R.F.C.)

"Mentioned in Despatches."

It was announced on September 17th that the names of the following have been brought to the notice of the Secretary of State for War for valuable services rendered in connection with military operations in the field :-

Royal Flying Corps.

Lt. E. A. Floyer, I.A.R.O. and R.F.C.; Lt. T. Henderson, R.E. and R.F.C.; 2nd Lt. B. E. Leeson, Ches. R. and R.F.C R.E. and R.F.C.; 2nd Lt. B. E. Leeson, Ches. R. and R.F.C.; Maj. A. J. Ross, D.S.O., R.E. and R.F.C.; 2nd Lt. V. D. Siddons, North'n. R. and R.F.C.; 2nd Lt. W. G. Stafford, Gen. List; Lt. (Temp. Capt. in Army) F. W. Stent, R.F.C. (S.R.); 2nd Lt. (Temp. Lt.) D. N. Thomson, Yeo. and R.F.C.; Cpl. C. J. Catchpole, No. 6737; Cpl. R. Colwill, No. 1859; Fl. Sgt. G. A. F. Gibson, No. 1753; 1st Cl. Air-Mechanic F. Pound, No. 3030; Cpl. C. E. Teasdale, No. 16933; 1st Cl. Air-Mechanic C. J. Warr, No. 5986; 1st Cl. Air-Mechanic J. F. Wilder, No. 8268; Sgt. H. H. Wright, No. 2567.



Bombs on Flanders Positions.

THE Telegraaf learns from the frontier on September 16th that Allied airmen have bombed the German position between Knocke-on-Sea, near the Dutch frontier, and the hamlet of The Germans directed a heavy fire on the airmen, the German shells falling on Dutch territory near the coast and breaking some windows on exploding. One shell burst and breaking some windows on exploding. One shell burst a short distance from two Dutch soldiers, who were, however, unhurt. This is not the first time that German projectiles have come across the frontier.

Bomb attacks occur every day in North Flanders and near the coast, says the Times correspondent from Amsterdam. Bombs were thrown on the Bruges-Eecloo railway just in

front of the little station of Donck, the object of this attack being to render military work difficult. At the point attacked there is a new aerodrome, which is likely to become the largest in Flanders. In the wooded region of Scheevege, between Donck and Moerkerke, many civilians are busy under the German lash.

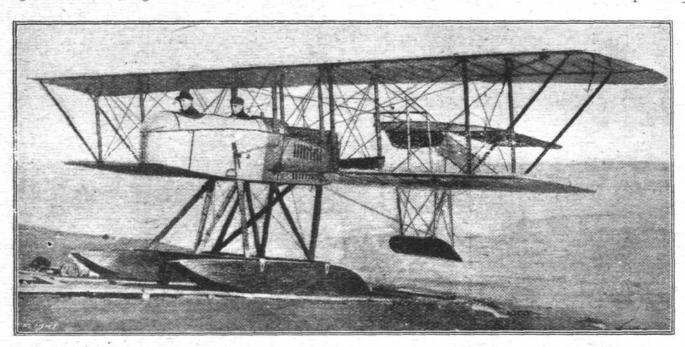
Two heavy air attacks were made on Zeebrugge on the night of September 15th. As on the previous Friday, when there was a heavy wind, two English aeroplanes appeared above the coast at Knocke. A cable balloon immediately descended, the defence guns came into action, no fewer than 200 shells being discharged. The airmen thereupon retired, but returned and reconnoitred the neighbourhood. Such reconnaissances occur frequently now.



G.A.C. "VERVILLE" PUSHER THE BIPLANE.

THE "Verville" pusher biplane, manufactured by the General Aeroplane Co., of Detroit, Mich., U.S.A., has been designed primarily for bombing and observation work, and, being of the pusher type, is capable of being efficiently armed for defensive or fighting purposes. It can be fitted with either wheels or throughout. All wiring is double, the factor of covered with unbleached Irish linen as specified by

A highly efficient section permits the use of liberal sized I-beam section spruce spars. The ribs are of I-beam section spruce with web and cap strips. The trailing edge is made of Shelby steel tubing. Strong internal drift wire bracing is carried out with Roebling aviator wire, and the whole of the internal floats, and a factor of safety of seven is employed wing structure is treated with shellac. The wings are

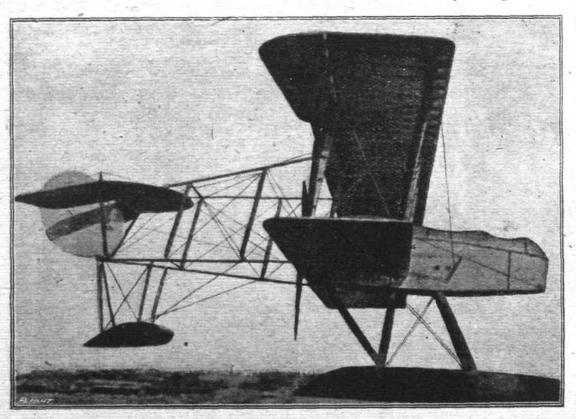


THE G.A.C. "VERVILLE" PUSHER SEAPLANE.—Three-quarter front view.

safety being taken on one wire. The cable joints are wrapped with 24 gauge soft copper wire, sweated with solder, and all joints are at least 3 ins. long. All metal parts are treated with primer and baked with three coats of non-corroding enamel.

The main planes are 40 ft. and 30 ft. span top and bottom respectively, the top plane being staggered forward 8 ins., and top and bottom planes each set at a dihedral angle of 5°.

the British Government. It has a strength in weft of 91 lbs. per inch width, and in warp of 103 lbs., and is doped with nine coats of Emaillite and surfaced with three coats of Valspar to reduce friction to a minimum and to render the wing impervious to the action of air and water. The linen cloth is stitched with No. 8 Irish linen thread at intervals of 4 ins. along ribs, thus obviating the use of nails, which have a tendency to split the members. This method,



Side view of the G.A.C. "Verville " pusher seaplane.

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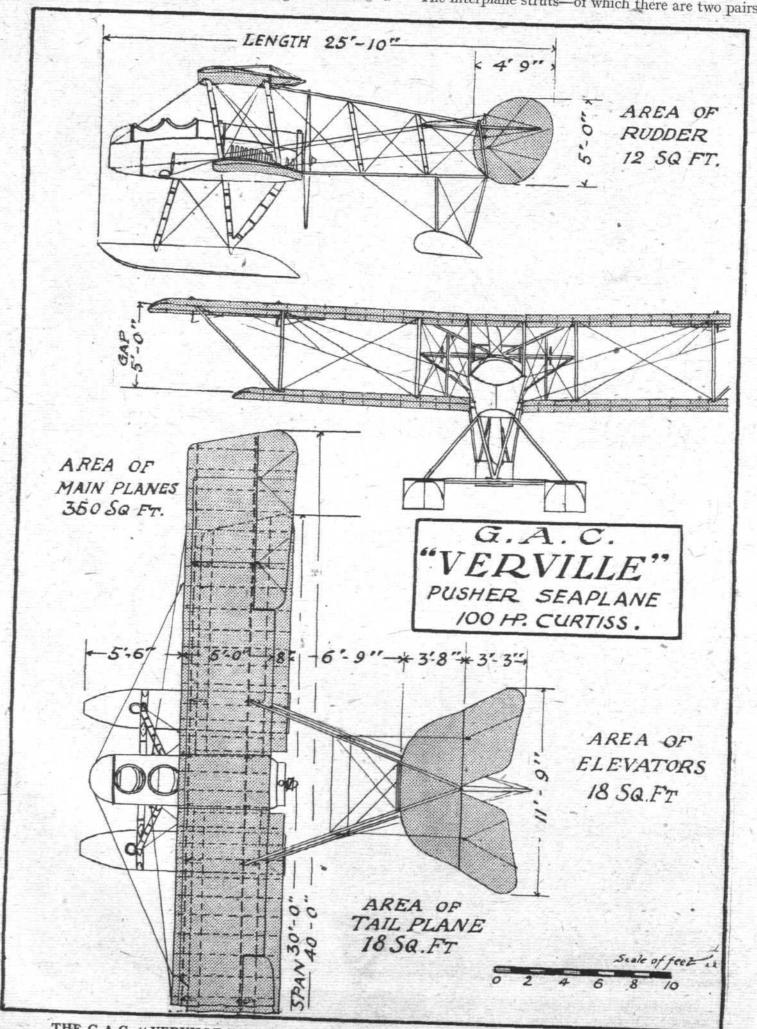
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which adds to the staying qualities of the cloth to the simple operation. The linen used is 35 ins. wide, and wing structure with ease and without injury, also is sewed with the English welt seam. renders the recovering of the wing framework a

The interplane struts—of which there are two pairs

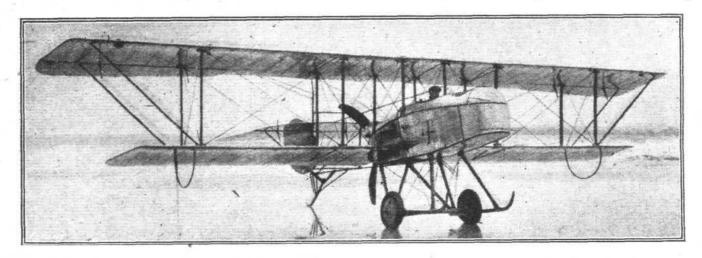


THE G.A.C. "VERVILLE" PUSHER SEAPLANE.—Plan, front and side elevations to scale.



each side of the *nacelle*, and two shorter pairs on the latter supporting the central panel of the top plane—are made of Virginia silver spruce, well seasoned, and coated with three rubbed coats of Valspar. The strut ends are copper tipped, and the struts are bound at intervals of 12 ins. with three wraps of 3-in. grey silk to relieve shattering of the wood fibre. They are built with a 2½ to 1 streamline fineness ratio, and have a weight to resistance ratio of

connecting the top and bottom pairs of outriggers. The nacelle, which is of good streamline form, is constructed of ash and spruce, heavily wired top and bottom, and is covered and crowned with light gauge aluminium or protected with light chrome steel sandwich armour to suit military requirements. The engine is covered by a hinged cowl. The pilot and passenger are accommodated in tandem seats in roomy, well protected cockpits, situated so as to pro-



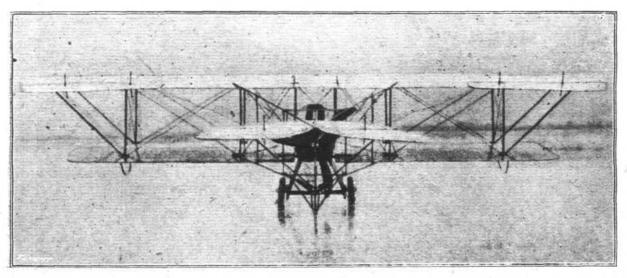
Three-quarter front view of the G.A.C. "Verville" pusher biplane, fitted with wheel landing chassis instead of floats.

6. The strut wing fastenings are of unusual design and obviate the disadvantages of the conventional fastenings by bolts and piercing of the spar. The lower spars extend through a metal box at the body, and are joined internally by a steel casing. The two outer sections of the top plane are attached to a small central panel.

The ailerons, 40 sq. ft. in area, are hinged to the extremities of the top wing at the rear wing spar by five cold rolled steel hinges. Two sets of pylons are mounted near the aileron edge in a steel casing. The equalising aileron control passes through an aluminium pulley box and fair leaders along the front spar of the

vide the maximum range of vision. The cockpits are veneered with bass wood and upholstered with green leather. The seats, which are of the aluminium bucket type, are comfortably upholstered, and the seat cushions are filled with sufficient Kapok to float a 250-lb. man for 24 hours. The engine-bearers, built of oak and spruce, are fitted in the steel engine plate at the rear of the body, and careful provision is made for suitably attaching the radiator.

The laminated dashboard is made of polished mahogany, and is equipped with altitude barometer recording to 15,000 ft., Tycos inclinometer, Tycos speed indicator, Tycos tachometer, petrol pressure



Rear view of the land-type G.A.C. "Verville" pusher biplane.

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top wing; 24-in. Lynite pulleys having brass bushings are used throughout.

The tail planes consist of a semi-circular stabilising surface, 18 sq. ft. area, to the trailing edge of which are hinged two elevator flaps, 18 sq. ft. area, and an elliptically-shaped rudder, 12 sq. ft. area. The stabiliser and elevators are mounted on the top pair of the V outriggers, whilst the rudder is mounted—so that it is partly balanced—on the vertical strut

gauge, eight-day clock, oil pressure gauge, electric light switch, dashboard light, motor cut-out switch, hand throttle and magneto control. Four Ever-Ready cells are provided for lighting dashboard light, wing tip light, and head and tail lights. The hand pump is convenient to the pilot at the side of the body.

The engine is a 100 h.p. Curtiss OXX-2, 8-cylinder, driving direct an 8 ft. diameter, 6 ft. pitch propeller.



The radiator is mounted behind the engine, the water capacity being 3 gallons. The service petrol tank, which has a capacity of 35 gallons, is made of 22 gauge terne coated steel, and is equipped with baffle plates, capacity gauge, pressure gauge, auxiliary pressure pump, $\frac{5}{16}$ -in. carburettor outlet and a $2\frac{1}{4}$ -in. airtight brass filler cap. A 3-gallon auxiliary gravity tank is also supplied. The Dep. type of control is employed.

In the seaplane the main floats are of the twin type, braced to the body by stout streamline members and counter wired oak ribs. They are diagonally spruce planked and longitudinally planked with Honduras mahogany, the two layers being interspersed with 4-oz. treated sheeting. The floats are divided into two watertight compartments by an aluminium bulkhead, and are rendered accessible by 24-in. aluminium inspection covers. The floats have the V-type entering edge, which spreads to a flat surface at rear, and are internally treated with boiled oil. Their displacement factor is $2\frac{1}{4}$ to I. The tail float of

Back from Germany.

In the second party of repatriated prisoners of war who arrived back from Germany via Switzerland on September 14th there were the following R.F.C. officers:

Name. Reported Missing.

Capt. C. C. Darley, R.F.C.

2nd Lieut. H. G. Frost, Suffolk, attd.
R.F.C.

2nd Lieut, D. S. C. Macaskie, R.F.C.

2nd Lieut. J. D. A. Macfie, Black Watch,
attd. R.F.C.

July, 1916. September, 1916.

April, 1916.

October, 1915.

A Gift from Benin.

A CONTRIBUTION of £1,000 towards the cost of the purchase of an aeroplane has been presented to the Government by the Oba of Benin, on behalf of the Native Administration of Benin in the Southern Provinces of Nigeria.

mahogany streamline section has a displacement capacity of 350 lbs.

The chassis for land is of the wheel and skid type, the two 26-in. by 5-in. Goodyear wheels being sprung on a tubular Shelby steel split hinged axle at the centre of the chassis, and is stoutly thrust wired. The shock absorbers are made of ½-in. Goodyear cord elastic, wound around twin drums over the axle head. The wheel hub is made of manganese bronze, and the wheels are dished with aluminium.

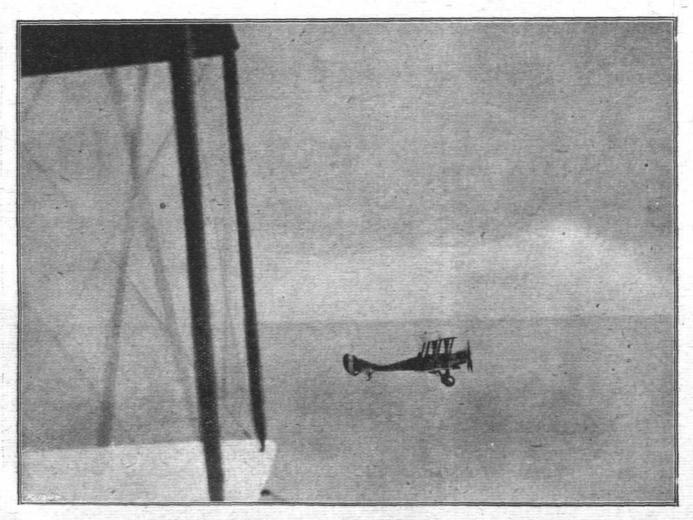
The principal characteristics of the "Verville" pusher are:—

Span: (top), 40 ft., (bottom), 30 ft.; gap, 5 ft.; chord 5 ft.; length overall, 25 ft. 10 ins.; supporting surface, 350 sq. ft.; stagger, 8 ins.; dihedral, 5°; gliding angle 1 in 7; angle of incidence of planes: (normal), 3°, (fast), 2°, (slow), 14°, tail plane, 0°; safe range of incidence, 0° to 14°; power plant, Curtiss OXX-2; fuel capacity, 5 hours; speed range (fully loaded), 4 hours (45 to 78 m.p.h.); climbing speed, 2,800 ft. in 10 minutes; weight (empty), 1,360 lbs. (land), 1,500 lbs. (sea); useful load, 600 lbs. (land), 450 lbs. (sea).

Seaplane v. Submarine.

Among a series of eight stories of the way in which the Navy is defeating the submarines which have been published by the Admiralty is the following:—

"A seaplane attacked an enemy submarine, which she had observed apparently manœuvring into position to fire a torpedo at a passing merchant ship. Before the seaplane arrived over the submarine the latter submerged, but three bombs were dropped on the position where he had disappeared from sight. In five minutes' time a large upheaval was noticed where the bombs had been dropped; this could best be compared to a huge bubble, rising some distance above the level of the sea, and distinctly visible for a minute or more. There was no further sign of the submarine."



AIR PATROLLING IN THE EASTERN MEDITERRANEAN.—One of our air patrols photographed in the air from another machine.





SPECIAL COMMITTEE MEETING.

A Special Meeting of The Committee was held on Saturday, the 15th inst., when there were present: Col. Sir Capel Holden, K.C.B., F.R.S., in the Chair, Lieut.-Col. W. D. Beatty, R.E., Wing Commander Spenser D. A. Grey, R.N., D.S.O., Mr. J. H. Nicholson, Commander C. R. Samson, R.N., D.S.O., and the Secretary.

Election of Members.—The following New Members were elected:

were elected :-

Flight-Commander Arthur Denis Allen, R.N. Capt. John Oliver Andrews, R.F.C. Jack Taylor Bennett.

Capt. Geoffrey Hilton Bowman.

Flight-Commander Irwin Napier Colin Clarke, R.N.

Surgeon Herbert J. Corin, R.N.V.R. Capt. Gerald Audry Cadogan Cowper, R.F.C. Lieut. Horace FitzPatrick, R.N.V.R.

Flight Lieut, Donald Ernest Harkness, R.N.

Lieut. Granton Ford Harmer, R.F.C

Flight Lieut. Colin William Jamieson, R.N.

Flight-Commander Marmaduke Scott Marsden, R.N.

Capt. George James Lincoln Netherton. Lieut. Ronald George St. John, R.N. **Temporary Honorary Member.**—Mr. Percy Frederick Newnham Toulmin was elected an Honorary Member of the Club for three months, viz., to the 15th December, 1917

THE FLYING SERVICES FUND administered by

THE ROYAL AERO CLUB.

The Flying Services Fund has been instituted by the Royal Aero Club for the benefit of officers and men of the Royal Naval Air Service and the Royal Flying Corps who are incapacitated on active service, and for the widows and dependants of those who are killed.

The fund is intended for the benefit of all ranks, but especially for petty officers, non-commissioned officers and

Forms of application for assistance can be obtained from the Royal Aero Club, 3, Clifford Street, New Bond Street, London, W. 1.

Subscriptions.

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Total subscriptions received to Sept. 11th, 1917 11,904 Staff and Workers of Gwynnes, Ltd. (Forty-

sixth contribution) ..

Total, September 18th, 1917

.. II,9I3 II 9

H. E. PERRIN, Secretary.

3, Clifford Street, New Bond Street, W. 1.

HONOUR. THE ROLL OF

REPORTED by the Admiralty:-

Flight-Com. C. E. Wood, R.N.

Accidentally Killed.

Actg. Sqdrn. Com. A. F. Bettington, R.N. Flight Sub-Lieut. A. A. Bishop, R.N.

Previously reported Missing, now presumed Killed. Flight Sub-Lieut. B. H. Bridge, R.N.

Accidentally Injured.

Flight Sub-Lieut. J. A. Cole, R.N. Actg. Flight-Com. E. A. de L. De Ville, R.N. Flight Sub-Lieut. G. W. Lavington, R.N. Prob. Flight Officer H. L. P. Lester, R.N. Prob. Flight Officer K. S. Wood, R.N.

Slightly Injured. Flight Sub-Lieut. R. N. Ball, R.N.

Missing (feared Lost). Flight Sub-Lieut. J. W. D. Cripps, R.N.

Missing.

Flight Sub-Lieut. E. D. Abbott, R.N. Flight Sub-Lieut. L. A. Adlam, R.N. Flight Sub-Lieut. J. R. Wilford, R.N.

Previously Missing, now reported Prisoner. Flight Sub-Lieut. V. G. Austen, R.N.

Reported by the War Office:-

Lieut. R. L. Clegg, Lanc. F., attd. R.F.C. Capt. H. S. Cleghorn, R.E. and R.F.C. Capt. H. S. Cleghorn, R.E. and R.F.C.
Capt. L. A. Hardwick-Terry, R.E., attd. R.F.C.
Lieut. C. G. Holman, K.O.S.B., attd. R.F.C.
Lieut. R. Martin, Yeo., attd. R.F.C.
2nd Lieut. W. S. L. Payne, M.C., R.G.A., attd. R.F.C.
Lieut. W. E. Sandys, R.F.C.
Lieut. W. Shields, Manch., attd. R.F.C.
2nd Lieut. T. E. Wray, R.F.C.
10814. 1st Air-Mech. C. F. Browning, R.F.C.
6728 2nd Air-Mech. R. L. Fairless, R.F.C.
3349 1st Air-Mech. A. M. Jones, R.F.C.
52645 3rd Air-Mech. J. G. Metcalfe, R.F.C.
4969 1st Air-Mech. G. S. Walker, R.F.C.
44354 2nd Air-Mech. A. E. Winstone, R.F.C. 44354 2nd Air-Mech. A, E. Winstone, R.F.C.

Previously Missing, now reported Killed.
2nd Lieut. G. Y. Fullalove, R.F.C.
2nd Lieut. G. Masters, N.Z. Pioneers, attd. R.F.C.
Lieut. R. A. Preston, M.C., Linc., attd. R.F.C.
2nd Lieut. W. G. Thompson, Suff. and R.F.C.
191 Flight Sergt. W. C. Webb, R.F.C.

Accidentally Killed.

39594 1st Air-Mech. G. C. Castell, R.F.C. 13210 Corpl. A. B. Newman, R.F.C.

Previously Wounded, now reported Died of Wounds. and Lieut. N. L. Watt, Cav. (S.R.), attd. R.F.C.

Previously Wounded and Prisoner of War, now reported Died of Wounds as Prisoner in German hands.

Lieut. J. R. Middleton, R.F.C.

Previously reported Missing, now reported Died as Prisoner in German hands. Lieut. L. Drummond, Engrs., attd. R.F.C.

Died of Wounds.

2nd Lieut. A. D. K. Craig, R.F.C.
2nd Lieut. F. Forster, R.F.C.
Capt. A. L. Gordon-Kidd, D.S.O., R.F.C.
Lieut. S. A. Harding, R.F.C.
2nd Lieut. A. T. Williams, R. Welsh F., attd. R.F.C.
9038 2nd Air-Mech. F. L. Rowe, R.F.C.

Previously Missing, now reported Died of Wounds as Prisoner in German hands.

Lieut. R. B. Hay, M.C., W. Yorks., attd. R.F.C

Previously Missing, now reported Died as Prisoner in Turkish hands.

4136 1st Air-Mech. S. B. Welch, R.F.C.

Died.

30441. 2nd Air-Mech. J. V. Chapman, R.F.C.

Wounded.

2nd Lieut. B. S. Alexander, Leic., attd. R.F.C. Lieut. F. B. Baragar, R.F.C.
2nd Lieut. C. W. Beatty, R.F.C.
2nd Lieut. V. W. Burgess, R.F.C.
Lieut. R. F. L. Bush, R.F.A., attd. R.F.C.
2nd Lieut. A. W. Campbell, R.F.C.
Lieut. W. A. Campbell, Cent. Ont., attd. R.F.C.
2nd Lieut. S. Cleobury, S. Staffs., attd. R.F.C.
2nd Lieut. G. M. Guillon, Quebec, attd. R.F.C.
2nd Lieut. G. N. Moore, R.F.C.
Lieut. A. H. Pannill, M.C., E. Ont., attd. R.F.C.
2nd Lieut. V. Phillips, R.F.C.
Lieut. J. A. Simmance, R.W. Surr., attd. R.F.C.
2nd Lieut. R. M. Smith, M.C., Aus. F.C.
2nd Lieut. R. C. Sotham, R.W. Kent, attd. R.F.C.
2nd Lieut. R. C. Sotham, R.W. Kent, attd. R.F.C.
Capt. B. E. Sutton, D.S.O., M.C., Yeo. and R.F.C. and Lieut. B. S. Alexander, Leic., attd. R.F.C. Capt. B. E. Sutton, D.S.O., M.C., Yeo. and R.F.C. Lieut. F. W. N. Thomas, Yeo. and R.F.C. Lieut. G. F. Ward, R.F.C. 2nd Lieut. S. L. Wilcox, R.F.C. Lieut. S. Willmott, R.F.A., attd. R.F.C.

and Lieut. G. C. Wilson, Aus. F.C.



7170 Sergt, W. R. Clark, R.F.C. 15912 1st Air-Mech. S. H. Goodall, R.F.C. 49181 Sergt. A. R. Harvey-Bathurst, R.F.C. 8551 1st Air-Mech. H. C. Velati, R.F.C.

Previously Missing, now reported Wounded and Prisoner in German hands.

Lieut. V. A. Norvill, Aus. F.C.

Missing. 2nd Lieut. E. S. Bacon, R.F.A. and R.F.C. Lieut. B. K. B. Barber, North'd Fus., attd. R.F.C. 2nd Lieut. J. H. Binns, R.F.C. Lieut. A. F. Bird, Norf. R. and R.F.C. Lieut. A. T. Heywood, R.F.C. Lieut. S. A. Harper, M.C., Ches. R., attd. R.F.C. 2nd Lieut. J. C. Huggard, R.F.C. 2nd Lieut. W. Kember, Lan. Fus. and R.F.C. Lieut. A. O. Macniven, High. L.I. and R.F.C. Lieut. J. B. C. Madge, R.F.C. Lieut. K. W. McDonald, R.E. and R.F.C. Lieut. J. W. F. Neill, R. Scots, attd. R.F.C. 2nd Lieut. A. C. Pickett, R.F.C. 2nd Lieut. C. Pickstone, R.F.C. Lieut. C. J. Pullen, R.G.A. and R.F.C. 2nd Lieut. E. D. S. Robinson, R.F.C. 2nd Lieut. E. M. Sant, Essex, attd. R.F.C.

2nd Lieut. F. Scarborough, R.F.A., attd. R.F.C. Capt. C. C. Sharp, R.F.C.
2nd Lieut. W. A. L. Spencer, R.F.C.
2nd Lieut. T. M. Webster, R.F.C. 2nd Lieut, J. F. Wightman, R.F.C. Lieut, S. W. Williams, Essex R. and R.F.C.

Previously reported Prisoner, now reported Wounded and Prisoner in German hands.

Lieut. G. S. French, Cambs. R. and R.F.C

Previously Missing, now reported Prisoners in German hands.

Lieut. C. A. S. Bean, B.C. R., attd. R.F.C. 2nd Lieut. J. Chapman, High. L.I., attd. R.F.C. 2nd Lieut. G. Colledge, Yeo. and R.F.C. 2nd Lieut. V. C. Coombs, R.F.C. 2nd Lieut. J. F. Henderson, R.F.C. 2nd Lieut. A. B. Hill, R.F.C. 2nd Lieut. R. N. W. Jeff, R.F.C. Lieut. W. B. MacKay, Cent. Ont. R., attd. R.F. Lieut. W. B. MacKay, Cent. Ont. R., attd. R.F.C. Lieut. M. Moore, Y. and L. R., attd. R.F.C. 2nd Lieut. L. Read, R.F.C. 2nd Lieut. H. G. Tinney, R.F.C. 2nd Lieut. A. Wearne, Aus. F.C. 87534 2nd Air-Mech. W. Harris, R.F.C. 6757 Sergt. T. Walker, R.F.C.

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CORRESPONDENCE.

Aircraft Stunts for Aircraft Sports.

A prolonged stay in France has prevented me from attending any of the numerous sports gatherings recently held by some of the leading aircraft firms. I am somewhat surprised, however, to notice on reading your reports of these affairs that up to the present no one seems to have attempted to give them a really distinctive character. I read of the same old flat races-or round races, according to the shape of the course-the same old competitions with eggs and spoons, and the same old sack races. I am not going to suggest that prizes should be awarded to the employee who has had the sack the most often, or to the damsel of the dope department who knows most about "spoons," but surely it is possible to introduce items a little more closely associated with the aircraft industry.

A competition to decide who could dope a tail-elevator or rudder in the shortest time could be made quite exciting, and would also have a beneficial effect on those taking part.

Similar events could be arranged regarding the painting of patriotic circles on planes, or putting on a coat of "P.C. 49," or whatever the official paint is called—each of these events being supervised by A.I.D. officials. The nimble fingers of the young ladies in the fabric department could be utilised in a competition for a certain length of sewing,

speed and neatness being equally important. By way of imparting a little variety to the ordinary foot races, why should not the competitors in the 200 yards sprint carry on their shoulders a propeller? And I should thoroughly enjoy watching—not taking part in—a mile race for men carrying a 5-gallon drum of castrol.

Finally, if there must be an egg-and-spoon race, let it, for the benefit of all concerned, be confined to the waitresses in the contents.

in the canteens.

I merely throw out these few suggestions in the hope that they may induce some of my ingenious friends in the aircraft industry to evolve some new ideas for forthcoming athletic meetings.

DOUGLAS W. THORBURN.

Hôtel Édouard VII, Paris, September 1st, 1917.

Parachutes.

[1945] "Leading Seaman" refers to a very frequently-discussed controversy, "Whether a pilot would rather stick to an uncontrollable aeroplane, or leap for life in a para-

We may safely assume that no aviator would deliberately throw himself into the unknown, as it were, except in the case of extreme emergency, and really no one but the aviator himself has a right to decide when this emergency occurs.

"Leading Seaman" appears to deplore the loss of the

Noted German Flyer Killed.

A MESSAGE from Amsterdam states that Lieut. Hohendorf, a well-known German pilot in peace time, was shot down by a British pilot in France during the first week in September According to La Guerre Aérienne, Lieut. Hohendorf went to a French school, as a pupil, in 1913, pretending he was a Swiss,

aeroplane. Human life is more valuable than aeroplanes, and the sacrifice of a few aeroplanes, behaving as death traps, is a small price to pay for the saving of as many human lives by the comparative certainty of the Guardian Angel para-chute. "Leading Seaman," curiously enough, overlooks the danger to the "men upon earth" from a free falling aeroplane at night.

Mr. Calthrop has provided for this contingency as far as possible by the illumination of the aeroplane by red electric lights automatically on the parachute being released.

It is quite true that under certain conditions it might be impossible to "shove off" from a falling aeroplane, but even if it is possible to get clear in no more than fifty per cent. of cases, the game is worth the candle, and the apparatus is worthy of universal adoption.

As to training pilots in the use of the parachute, this should be infinitely less difficult than teaching them to fly.

The principle adopted would be the precept of example; the practical arrangements would present no insuperable

difficulty.

Were I a pilot, instead of a would-be parachutist, I would decline to fly without a Guardian Angel parachute.

"Have We Got the Best Engines?"

It may be revealed after the war that betterdesigned aero engines than some of those at present in use have been pigeonholed by the Air Board, and engine designs that should have been pigeonholed, have been ordered by the thousand. Ugly rumours are flying around, and many are curious to know how one particular engine found its way into an aeroplane, and what is its record up to date. The method of dealing with designs sent in by practical engineers outside a given circle should be reformed. The official letter signed by a highly-paid official, who, probably, has no practical knowledge of the subject, is out of date. Let the men who pose as experts give a tangible reason for the non-acceptance of a design, and back their opinion and reputation with their signatures. Many of our experts are out of date, living on a reputation made many years before the war. To combat the Huns' up-to-date scientific methods, we should have a committee of disinterested men, with up-to-date business methods, who can tackle the problems daily as they come in, and see that each designer gets a fair hearing without favours. As things now stand, it takes from six weeks to two months to get an official reply which might have been sent by return of post, because they are all the same, meaningless and nonof post, because they are an incommital, and still we marvel not at the cry "Too late "INTHENO."

Farnborough, September 14th.

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but when he was discovered by some workmen taking measure-ments of an important new machine, he disappeared. He was last mentioned in German communiques in when he was credited with having brought down his eleventh enemy machine. He was given the Order Pour le Mérite in that month.



AIR RAIDS AND SOME CONCLUSIONS.

Or the still surviving primeval feelings of man there is probably none stronger than that of retaliation. If a man knocks you down, your first impulse is to scramble to your feet in a healthy desire to "get at him." This feeling is pretty strong among the population of a raided district, especially immediately after a visit from the Gothas, and the question uppermost in the minds of the majority of people is, very naturally, why is it that the Germans can raid our shores and our capital while, apparently, our efforts in this particular direction are confined to raids on aerodromes and ammunition dumps in Belgium and other places situated at no very great distance from the frontier. In order to show more clearly the radical difference in the problem from the enemy's and from our own point of view, we have prepared the accompanying sketch map, which should show at a glance how favourable are conditions to raids by the enemy and how unfavourable to raids by the Allies.

First, let us deal with air raids against the two capitals. If we presume that the German raiders start their flight from some point in Belgium, Bruges for instance, the distance to London, taking a direct route, is only about 140 miles,

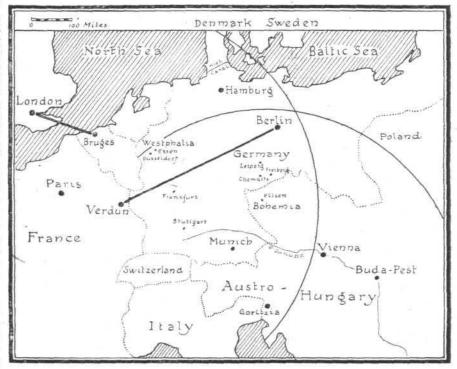
100 of which are over the sea. From the time when the raiders cross the English coast to the time when they arrive over London only about half-an-hour elapses, which leaves little time for giving warning and sending aeroplanes up in pursuit-although it is true a somewhat longer warning of their approach should be available through our organised system of defence. On the other hand, the distance from a point on the French front, as Verdun or Nancy, for instance, to Berlin is in the neighbourhood of 430 miles, giving a total distance to be covered of 860 miles. This is in itself a serious problem to solve from a technical point of view, quite apart from the fact that it is to be expected that every mile of those 860 will, figuratively speaking, be contested by the enemy's antiaircraft defences. Opinions as to the possi-bility of making the round trip are probably Opinions as to the possidivided. As for ourselves, we have for some time been firmly convinced that it can be done, and we feel quite confident that it will be done. We are keenly aware of the difficulties, and do not underestimate these, but it is now already many months since a French pilot flew to Berlin and thence to within a few miles of the Russian front, is true that this-pilot did not drop anything more frightful than pamphlets on Berlin, but so rapid is the development in aviation that to-day there are undoubtedly in existence

machines capable, with comparative safety, of the round trip of 860 miles. That we are justified in this assumption appears to be confirmed by the report published last week of the Italian aviator, Capt. Julius Laureati, covering a distance of approximately 1,000 miles on a new Italian aeroplane. The possibilities opened up by this splendid flight are enormous.

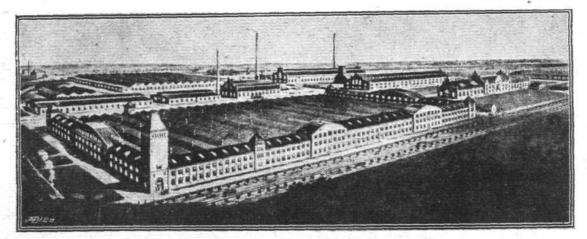
In our sketch map we have taken this performance as a basis and have plotted two circles, with centres at Verdun and at Goritzia respectively, to indicate the portions of Germany and Austro-Hungary within reach of Allied aircraft. In taking the radius as 500 miles we are well aware

that, although this distance was covered in a peaceful crosscountry flight, it does not necessarily follow that the same distance is possible over enemy country. Since, however, the bare possibility of to-day is, in aviation at any rate, the accomplished fact of to-morrow, the radius has been chosen as indicating the possibilities of the very near future. Berlin, then, may now be said to be within bombing distance of either the French or Italian fronts, and, if the Huns persist, the day should not be far distant when bombs instead of pamphlets are showered on Wilhelmsstrasse.

Reference has already been made to the fact that the British overland portion of the German raiders' route is only some 40 miles long, with consequent short time in which to give warning and send up pursuit machines. On the same reasoning, the Germans are more favourably situated in having some 430 miles of country over which Allied squadrons would have to fly in order to reach Berlin. Let us examine this point a little more closely and see if this fact is an unmitigated blessing. If Berlin were the only objective to be aimed at, the time for warning would necessarily be so long as to enable the enemy to make all his preparations



beforehand and be ready for our bombers long before they got to Berlin. Since, however, large portions of Germany are within the 500 miles radius—in fact, all of Germany except East Prussia-there are a number of points where attacks from the air could be made with advantage. - Between them the two circles include the greater part of Germany and the more important parts of Austro-Hungary. Thus we have, in Germany, the industrial centres of Westphalia, the Krupp works at Essen for instance, the shipping port of Hamburg, the fortifications and shipyards all up and down the German North Sea coast, not to mention the Kiel Canal itself. In the south there are such places as Stuttgart



斑斑斑斑斑斑斑斑斑 Where 9 few bombs would not be out of place. A portion of the German arms and munitions factory, These Berlin. works 選 should form an excellent target 滋 for bombing squadrons, espethey cially as probably have considerbeen 斑 extended ably 涨 during the war.

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and Frankfort, in times of peace centres for the motor industry, but now undoubtedly busily engaged on war work. In Saxony there are the chemical factories at Chemnitz, Leipzig and Freiberg. If we are minded to revenge Louvain, Rheims, &c., there are such ancient art cities as Munich, or the mediæval town of Nuremberg. Thus one might continue ad infinitum. It should not be forgotten either that of late years Germany has improved her inland waterways by extensive canalisation, and that numbers of small craft and even submarines, or at any rate their component parts, may be built at points far inland and only within reach of aircraft.

As for Austro-Hungary, all the portions that are of any industrial or military importance are within reach of air-craft from the Italian frontier. The two capitals, Vienna and Budapest, are situated at a distance of only approximately half of the 500 miles radius, and therefore could, and, we think, should, be given a taste of their own pet form of frightfulness. The Magyars, it should be remembered, are the "Junkers" of Hungary, and are, by the way, the true Huns of Europe, the descendants of Attila. The industrial centres of Austria are not so very far from the Italian front, being chiefly spread around the eastern slope of the Alps and in the country between the Alps and the right bank of the Danube. In Bohemia we have the Skoda Works at Pilsen, which are, of course, the Krupps of Austria. Again, in Austro-Hungary the Governments have spent millions of pounds on the canalisation of the rivers, which have been rendered navigable to an astonishing extent. Cables have been laid along the river bottom in order to facilitate chain towing, which does not damage the banks to the same extent as paddle or screw steamers. As there is no trade or shipping, why all this feverish anxiety to provide navigation of the rivers leading into Germany? Purely with a view to the present situation surely! Much more might be said regarding suitable targets for our bombing squadrons, but sufficient has been indicated to show that there need be no scarcity of objects on which to drop our explosives with good effect.

Now, to return to the problem of raids across Germany and the countries of her Allies. It was pointed out that the mere fact that there are some 430 miles of German territory to be covered on our way to Berlin renders it all the more possible to give timely warning—if it is certain that Berlin is the objective. But, and this is a very important but, we have already briefly indicated a score of other places where it would be just as great advantage to drop a few of our "eggs," and the list, so far from being completed, is only

just touched upon. If, now, the enemy does not and cannot know definitely which objective a certain squadron is making for, he will have greater difficulty in intercepting it. This is merely another way of saying that in order to be reasonably well defended against attack by aircraft he will be obliged to keep at home and maintain an enormous force of aeroplanes, anti-aircraft guns, and their personnel. It would be futile to say that this fact alone would force him to keep for defensive purposes at home his Gothas and other long-distance machines, and thus effectively stop his raids on England, as the type of machine that would be employed against attacking squadrons of Allied aeroplanes would not, of course, be of the Gotha type. But the defensive machine would be of practically the same type as the fighting machine from the western front, and the Hun would therefore have to either increase his production enormously or else be content to weaken his air forces by withholding a certain percentage of his fighting machines for defensive purposes at home. Either way our object of the raids would be attained, and the very extent of the enemy's territory within the danger zone would determine the magnitude of his home defences.

Tempting as it is, this is not, for obvious reasons, the place to go into details as to how raids might be organised, but that they should be made, and, we feel confident, will be made, there cannot be the slightest doubt any longer. Of military objectives there are, as we have pointed out, an abundance within reach of either front, while the effect of a goodly number of bombs on military works attached to the capitals and other objectives should be well worth risking a few machines for. Until we can bring home to the originators of bombing raids on towns not ordinarily in the military zone the horror and injustice of it, these raids will continue. And this we can only do by laying a few of our "eggs" on Wilhelmsstrasse and on the Prussian towns and provinces indicated. When this is done—and it must be done—it will go a long way towards bringing the Hun to his senses; and if, as will be the case, a few civilians are killed in the process it will, of course, be regrettable, but it may be instrumental in initiating the more sensible German into a method of warfare for which, after all is said and done, he has only his Prussian rulers to thank, and thus may go a long way towards instilling sense as to the conclusion of the war. While Berlin was well outside the zone of war it was, no doubt, good policy to strafe innocent civilians, but now that it can be reached, the originators may begin to alter their views. These things have a habit of coming home to roost.

FATAL ACCIDENTS.

2ND LIEUT. H. E. BUSBY, R.F.C., was killed on September 11th. His machine, in descending from a height of 400 ft., suddenly nose-dived, and death was instantaneous. It was said to be his first flight alone.

Lieut. Aime Antoine Ledger, Can. Inf., attd. R.F.C., was drowned when his machine dived into the sea off Rustington, Sussex, on September 11th. He got clear of the machine, but suddenly threw up his hands and disappeared. The body has been recovered.

A verdict of "Death from misadventure" was returned at an inquest on Prob. Flight Officer A. S. Poofceso, whose machine fell into Chingford Reservoir, and he was drowned before assistance arrived.

2nd Lieut. P. G. Angood was killed in a flying accident near Chippenham, Wiltshire, on September 11th. His machine nose-dived, and fell into a tree.

Major E. J. Bannatyne, D.S.O., R.F.C., died at Circncester Hospital, on September 11th, from the effects of an accident on August 30th. His machine caught fire, but he brought it nearly to the ground, and jumped clear, being badly burnt, and otherwise injured. Tetanus was the cause of death.

Capt. S. K. Muir, R.F.C., was killed while flying in the Grantham district on September 13th.

While flying at Montrose on September 13th, 2nd Lieut. R. Jardine, Scots Gds., attd. R.F.C., met his death. He had just ascended, but banking too quickly his machine nose-dived to earth, and he was killed instantaneously.

and Lieut. K. Billing was killed, on September 14th, by falling from an aeroplane while flying near Birmingham. He ascended alone in a two-seater machine, before leaving for another station for a course in aerial gunnery. He was then seen to fall from the aeroplane, which righted itself, but subsequently crashed to earth in a wood at Water Orton. A search party was organised immediately, but

it was not until about 10 o'clock the next morning that the body of the pilot was discovered in a field about a mile from the spot where the machine fell. It was suggested at the inquest that when in the air the pilot received a sudden jerk which by bringing undue pressure on the safety belt, broke the pin, and caused the belt to fly open, thus releasing the pilot's body. A verdict of "Accidental Death" was returned.

2nd Lieut. F. M. Hawes, R.G.A. and R.F.C., was killed in an aeroplane accident at Little Heath, near Potter's Bar, on September 14th.

Flight Sub-Lieut. A. A. Bishop, R.N.A.S., was killed on the evening of September 14th, his machine nose-diving from a great height and crashing on the rocks off the Kent coast.

As the result of an aeroplane accident at Brooklands, Air-Mech. J. Fay, R.F.C., died of injuries at Caens Hill Military Hospital, Weybridge. Through its engine stopping a machine had to make an involuntary landing from a height of 50 feet, and one of the wings caught Fay, who died from a fractured skull.

An inquest was held at Lincoln on September 17th on Lieut. W. S. H. Palmer, R.F.C., who fell while flying in Lincolnshire. On reaching the ground the machine burst into flames, and before deceased could be released he was severely burnt. He died from shock four hours later. The evidence showed that this was Lieut. Palmer's first flight alone, though he had previously had entire control when accompanied by his instructor. The jury returned a verdict of "Accidental Death."

At an inquest on September 17th at Faversham on Lieut. R. Le Gallais, R.F.C., who was killed while flying on the afternoon of September 15th, another officer who witnessed the fall said he thought the interplane strut broke, causing the left-hand wings to collapse and the machine to fall out of control.





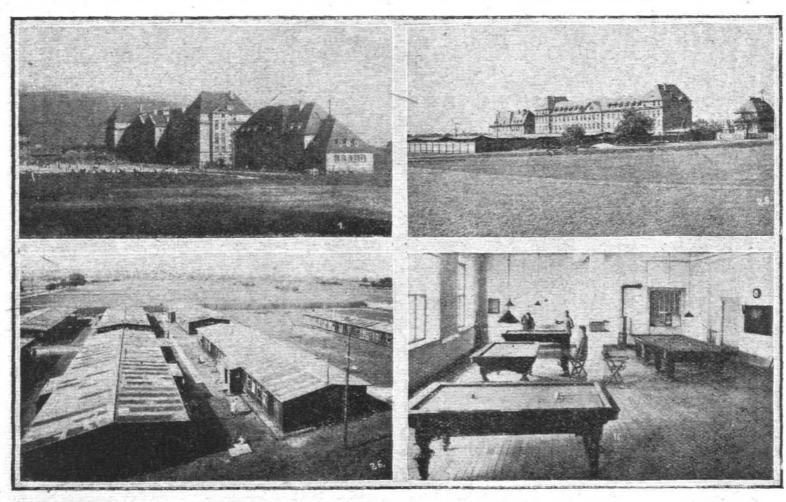
The official Air Services Exhibition still continues its successful tour through the provinces, and on the 27th inst. reaches Leeds where Mr. Asquith has promised to inaugurate its opening. Backed as it is by the Army Council and the Air Board, by the time the round of England has been made, there should be quite a nice little balance in hand for Lady Drogheda to pass on to the R.F.C. Flying Funds and other good purposes for which the proceeds are ear-marked.

Why is it an axiom since the war started, for Government officials to mark down, for new factories and buildings of that character, some spot to which the maximum objections from almost everybody's point of view except the officials—and as a rule minor, at that—to the erection of such factories applies, especially when much more suitable sites can, as a rule, be found without the slightest difficulty if the proper people are only consulted beforehand. Not only does this apply to London, but even more horribly, if possible, out of the metropolis. Therefore do we add our personal congratulations to the thankfulness of many millions of His Majesty's subjects, to the Richmond Town Council, who have by prompt action been able to quash the intention, eminating probably from some rampant section of bureaucracy, to establish a huge aeroplane factory in the Ham Fields between Teddington Lock and Ham. This would have completely destroyed what is generally recognised as about the most remarkable piece of unspoiled river scenery within 50 miles of London. And all to no purpose. The decision to abandon this sacrilege is largely due to the interest which Lord Sudeley

took in the matter, with the result that this glorious view has been saved and the factory will still be erected within measurable distance of the originally chosen site.

Lord Northcliffe is making good with our Allies in America, not only for himself but for the Empire. It was an inspiration to send him over the water, and a huge stroke of good luck for the country that he was able to take on the Imperial work selected for him. His impressions and deductions therefrom should be invaluable to the whole of the Allies in helping to finish off the Huns. He is not out to throw bouquets to anyone, and his views are therefore all the more valuable to those who care to absorb them. In the couple of articles which he has just published in the *Times*, there is much food for reflection, and it is a comfort to read Lord Northcliffe's final words in the second letter:

"It is easy," he writes, "to say that many of these things might have been done a couple of years ago. But democracies do not work in that way. Even after the war had begun, we in England spent almost two years in discussing whether we should have equality of sacrifice in regard to military service, and Canada was still debating the question until a few days ago. Each nation has to make its war preparations after its own fashion. No nation seems to learn much from any other. The American war machine is being built in the American way. It may be that it will have its faults, but for all that it is the mighty sledge-hammer that will pulverise Prussianism. The Americans are getting to war with all the virility and intensity of a very forceful people."



WHERE SOME OF OUR FLYING SERVICES OFFICER PRISONERS OF WAR ARE INTERNED IN GERMANY.—The Prisoners' Camp at Heidelberg. The above set of interesting photographs has been sent over by Sub-Lieut. R. Leslie Kent, R.N.A.S.—whose capture was recorded in "Flight" a fortnight ago—who is one of those who are being temporarily cared for by Germany. Judging by the pictures, these lodgings are apparently comfortable, considering the circumstances. The top pictures are views of the exercising and "residential" enclosures respectively, whilst the lower photographs show the buildings at closer range and a billiard room, which, presumably, is at the disposal of the prisoners of war.



In referring to the Air Service part of the United States

activities, Lord Northcliffe sums up as follows :-

The enthusiastic outpourings of air amateurs and their cries of 'One hundred thousand aeroplanes' have made a good many people sceptical as to American participation in the air fighting. But behind all that talk is already a vast accomplishment. The solid foundation has been laid of an air service, backed by practically illimitable man-power and machine-power. Its fruits will be shown as suddenly as came machine-power. Its fruits will be shown as suddenly as came conscription. The movement is going on as rapidly as possible having regard to the thoroughness with which everything is being done. There has been a complete liaison with the air services of France and England. The models of the latest French and English machines are here. While no time has been lost, most careful consideration has been given to a definite plan of campaign."

How the best is got out of the recruits from civilian life now being absorbed by the military machine, is drawn attention to in a letter from Mr. Percy Lea of Tamworth. Mr. Lea

protests thus:

"A man whom I know joined the R.F.C. a month ago as a skilled mechanic and wood worker. Up to date, his wife tells me, he has done nothing except wash dishes and scrub floors. This in spite of advertisements for skilled men for the R.F.C.

a few days ago!
"This is almost as bad as the case of a qualified dentist I know who is in France and has been road-making ever since

he went overseas.
"I understand that dentists are urgently needed for the

COMMENT is hardly necessary, but multiply this sort of case by two or three hundred thousand and the criminal waste may be faintly realised which is going on under army officialdom, in misusing the nation's man power to the best purpose for bringing the Huns most speedily to the end of

It's a pretty honourable record which attaches to the war work of the Overseas Club, the members having already



Lieutenant G. S. M. Insall, V.C., R.F.C., who has escaped from Germany after twenty months. He was awarded the V.C. for conspicuous gallantry, skill and determination on a Vickers fighting machine on November 7th, 1915. This photograph is one which was taken in Germany and sent over last January by Lieut. Insall to his parents.

contributed just on £500,000 for war purposes. In less than six months the club has collected more than £13,000 for the two Royal Flying Corps hospitals which have been opened one in Eaton Square and one in Bryanston Square.

GENERAL SIR DAVID HENDERSON, who is such a keen and sympathetic supporter of these R.F.C. Establishments, in a letter of thanks to the Club, specially points out that the Overseas Club has a strong link with the R.F.C., the Corps has already to thank its members for the presentation of over 100 aeroplanes; while nearly 1,000 Britons from over-seas hold commissions in the Corps. In the near future, Sir David continues, they hope to open an up-to-date convalescent home, if possible by the sea, where the officers will be able to regain strength under ideal conditions. He hopes, therefore, that we may count on the Club's continued help.

AFTER all it would appear that the Captain Ball, V.C., R.F.C., did not come by his death from the great German crack flyer Captain Baron von Richthofen, but from the Baron's younger brother. Up to the present, reports have given credit to the Baron himself, but now it emerges from a careful translation of the circumstances surrounding Captain Ball's death from the late Baron's book, The Red Battle Flyer, that he does not claim this honour. He enters into minute and boastful details as follows

"My brother's twenty-second adversary was the famous Captain Ball, by far the best English flying man. The equally well-known Major Hawker I had already taken to my bosom some months earlier. It gave me special joy that it should be my brother's luck to down the second of England's champions.

"Captain Ball was flying a triplane, and encountered my brother alone at the front. Each one tried to grip the other, and neither exposed any vulnerable part. It proved a brief encounter. Neither of the two succeeded in getting behind

the other.
"Suddenly within the brief moment of mutual frontal attack both managed to fire some well-aimed shots. Both flew at one another; both fired. Each had a motor before him, and the chances of a hit were very slender, the speed being double as great as the normal. There was really little probability of either hitting the other.

"My brother, who was somewhat lower, had banked his machine too much, and he lost his balance. For a few moments his machine was beyond control. Very soon, however, he regained command, but found that his opponent had shot both his petrol tanks to pieces. To land was, there-

fore, the only resource.

"' Quickly! Out with the plug or the body will burn!'
The next thought was: 'What has become of my opponent?' At the moment of canting he had observed how the enemy also had swerved aside. He could, therefore, not be very far from him. The question arose: 'Is he over or under me?' He was below. My brother saw the triplane swerving again and falling ever more deeply. Captain Ball fell and fell until he reached the ground. He was on our territory.

"Both adversaries had in the brief moment of their encounter hit each other with their powerful machine guns and

ter hit each other with their powerful machine guns, and

Captain Ball had received a shot in the head.

"He had on him some photographs and newspaper cuttings from his home country in which he was greatly praised. He appeared shortly before to have been home on leave.

"During Boelcke's time Captain Ball had destroyed 36 German machines. Now he, too, had met his master—or was it a coincidence that a great one such as he should also die the it a coincidence that a great one such as he should also die the

usual hero's death?

Captain Ball was without doubt the leader of the anti-Richthofen squadron, and I believe that now the Englishmen will prefer to abstain from trying to catch me. I am sorry for this, because thereby we are robbed of many a fine oppor-

tunity for giving the English a jolly drubbing.

"Had not my brother been wounded, I believe he would on my return from leave also have been granted his leave with

52 Englishmen to his credit."

TEN YEARS AGO.

Excerpts from the "Auto." ("FLIGHT'S" precursor and sister Journal) of September, 1907. "FLIGHT" was founded in 1908.

THE GERMAN AIRSHIPS AT PRACTICE.

No time is being lost in Germany in ascertaining the capabilities of their aerial "fleet," and practical trials take place almost daily. Last week both the Parseval and Gross machines were sent aloft for a combined trial, the former travelling to Tegel against a fairly strong wind, while the latter journeyed across to Spandau, and after returning proceeded to manœuvre over the parade ground, and ulti



mately took on board General Von Werneburg, Inspector of Railway Military Engineers. By the time the evolutions of the Gross airship had been completed, it was rejoined by the Parseval, and both made very successful descents at the same time.

Another important passenger who recently went up in the Parseval was Herr von Hollman, former Secretary of the Imperial Navy, and who was responsible for founding the German society for studying dirigible balloons.

THE FIRST BRITISH MILITARY AIRSHIP.

In the annals of our country, Tuesday of this week must for ever stand out as a red-letter day, for it was then that the great British military airship—which has been aptly named "Nulli Secundus"—proved its affinity with its natural element for the first time. . . After the few necessary adjustments, such as can alone be made immediately before a machine is set in motion, the engine was started and propellers given a trial spin, after which, at a signal from Col. Capper, who was at the wheel, the great dirigible balloon was allowed to ascend quietly into the air, also carrying on board Mr. Cody, of kite fame, who was in charge of the machinery, and Capt. W. A. King. At a height of about 150 feet the airship came to the end of its tether, and the order was given to haul in on the ropes, and thus bring the machine once more down towards the ground. This manœuvre was executed two or three times in succession in order to ascertain the nature and force of the wind, but after Col. Capper had satisfied himself on this matter, and that the ballasting was satisfactory, the signal to let loose was given, and the great airship for the first time in its life, sailed away free from all connection with mother earth.

Rising to a height of some 400 feet, it headed in a south-easterly direction, and, after proceeding on this course for half a mile or more, made a complete sweep, turning west-wardly, all the while manœuvring about apparently under most perfect control. After having been aloft for about 10 or 15 minutes, the driving belt of the fan broke, and, although a small matter, which could have been rectified on the spot, it was considered desirable to descend, as the airship was not, at this time, more than a few hundred yards from the shed, to which it was immediately taken after effecting

a successful landing.

During the afternoon, a further trial was carried out in the presence of Col. Templar, the occupants of the car being Col. Capper and Mr. Cody, as before, while Mr. McWade, the works foreman, took the place of Capt. King as passenger. The order to cast loose was given immediately the airship had risen to the height allowed by the ropes, but hardly had it gone a few feet further, when, as the result of a sudden manœuvre, the great aerial morster came rushing head foremost towards the ground.

It was an anxious moment for all, but although rather

terrifying to watch, the actual result of the collision was happily not serious, although a part of the framework was bent.

(Then follows a detailed description of this, our first, "military" airship.)

SANTOS DUMONT, No. 16.

Certain modifications have been made in M. Santos-Dumont's aeroplane, one of the most important being the substitution of a three-bladed propeller in place of the two-bladed type used formerly. The new propeller, like the old, is constructed of aluminium. Formerly, too, it will be remembered, the machine at rest was supported on a single bicycle wheel, but now the under framework has been enlarged to take a transverse axle carrying two bicycle wheels, and it is hoped by this means that the aeronaut will experience less difficulty in maintaining his balance during a preliminary run on the ground prior to actual flight, to attain which a speed of from 60 to 80 kilometres an hour is necessary.

THE BROTHERS WRIGHT IN EUROPE.

It is now three months since the brothers Wright came to Paris, and although they have, in the interval, visited Berlin, and have even gone solfar as St. Petersburg, nothing, as yet, seems to have come of their interviews with high authorities. Although at present residing in the French capital, it is very generally believed that their negotiations are being conducted with Germany, but so far, at any rate, in the absence of demonstration, they do not seem to have found their secrets a very marketable commodity.

A NEW ZEPPELIN AIRSHIP.

It is announced that Count Zeppelin is about to commence the construction of another airship, which will be considerably larger than his present model, and will embody several important modifications in the design, principally of the steering apparatus. It is, we understand, to be equipped both with wireless telegraph and search-light apparatus. It is also expected that the floating balloon-shed on Lake Constance will be completed by about the middle of this month, when further trials will be made with the Zeppelin airship which is already constructed.

THE VAULY AEROPLANE.

A description was given in "Auto.," of September 14th, 1907, of a "pusher" monoplane, with two propellers, built by the Comte de la Vaulx. It was driven by a 40-50 h.p. 8 cyl. Antoinette motor.

THE MALECOT AIRSHIP.

Details were also given in the same issue of the airship constructed by M. Malecot. The distinguishing feature of the airship was a large horizontal plane fixed beneath the gas vessel. The preliminary trial was not very successful, one of the cables carrying the passenger basket fouling the propeller.

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A MEMORIAL TO MAJOR GOODDEN, R.F.C.

In order to perpetuate the memory of the late Major F. W. Goodden, R.F.C., the workmen of the Royal Aircraft Factory some time ago initiated a scheme for a memorial in the factory. A committee representing all branches of the R.A.F. was appointed, and a sum of floo was quickly collected. On the suggestion of Mr. Henry Greenly, the Hon. Secretary, it was decided to keep the fund open; it now totals nearly floo, Sir William Weir having recently handed to the Superintendent of the R.A.F. a cheque for floo. It has been decided, as will be seen from the interim report of the Committee which we now give, to use only a part of the fund for a material memorial, and to devote the remainder to a general education scheme for trade lads at the R.A.F. on the lines of those existing in other Royal factories and dockyards. The following is an official résumé of the proceedings in regard to the memorial, up to date:—

proceedings in regard to the memorial, up to date:

Nature and Position of Memorial.—The various proposals for erecting a permanent memorial within the Factory grounds have been fully considered and the selected positions viewed. Owing to the temporary nature and arrangement of all R.A.F. buildings, it was thought better to abandon the idea of placing a memorial on or in any particular building of the Factory, and in view of the arrangements made by other personal friends of Major Goodden, the suggestion for erecting a memorial in St. Mark's Church was not proceeded

with.

It was decided that the best method of keeping Major Goodden's name prominently before all R.A.F. employees was to hang in each of the mess-rooms and canteens an enlarged photograph of Major Goodden, suitably framed,

with an inscription in the form of a metal tablet on the frame. This work is being proceeded with, and as soon as completed, the pictures will be allocated to the senior messroom, foremen's mess-room, men's new mess-room, H.A.P. sergeants' mess, girls' canteen, Y.W.C.A. canteen.

Trustees and Investment of Funds.—The money collected is invested under the names of the three trustees: Mr. Henry Fowler (S.R.A.F.); Major H. Grinsted, Engineer Design; and Major G. B. Turner, Engineer Production, and a trust document has been prepared.

Administration of Fund for Educational Purposes.—The Committee would have preferred that the annual sum available should be used to provide prizes for the students at the technical classes to be held in connection with the R.A.F. As they recognised that the present classes did not form a very satisfactory basis for the administration of the fund, as suggested in this Sub-Committee's report, an Education Sub-Committee has been formed which is fully representative of the various departments, with the trustees as ex officio members. This Committee have considered the whole question of technical education upon an entirely new basis, and will take full responsibility for the administration of the Goodden prize in the future.

Publicity of Scheme.—The members of the Committee are still doing what they can to give full publicity to the scheme. As a result of these efforts further subscriptions have been received, and the amount collected now totals over £198, which includes a cheque for £50 received from Sir William Weir. Some departments have yet to institute collections.



Personalsass

Casualties.

Second Lieutenant George Barclay Buxton, Norfolk Regiment, attached R.F.C., was reported missing on July 28th, having been last seen flying east attacking four Hun machines well behind the enemy's lines, having previously accounted for one. It has now been reported that he was killed on that date. He was 24 years of age, and the third son of the Rev. Barclay F. Buxton, a missionary in Japan, and late of Widbury, Ware. When war broke out he was in British East Africa, and joined the King's African Rifles as a scout. Later he returned to England, and after two months' training as an officer, joined the Norfolks on active service. For nine months he was A.D.C. to Major-General Hare. Hearing of the need of R.F.C. pilots, he returned to England, and quickly won his pilot's wings. He went out to France in July, 1917. He was educated at St. Andrew's School, Southborough, and at Repton. His cldest brother Murray, Norfolk Regiment, was severely wounded at the battle of Gaza, and won the Military Cross, which his younger brother, Captain Godfrey Buxton, Duke of Wellington's Regiment, has also received.

Second Lieutenant Richard John Grandin, Army Service Corps, attached R.F.C., who has fallen in action, was born in 1892, and was the only son of Mr. J. E. Grandin and the late Mrs. Grandin, St. Heliers, Jersey. He was educated at Victoria College, which he left at the age of 15 to join the training ship "Conway." Failing in the last colour test, he completed his education at the Lycée of St. Breux, in France, Second Lieutenant Grandin was gazetted to the 3rd R.M.I.J. in December, 1909, promoted lieutenant in April, 1912, and captain in April, 1914. Desiring service overseas, he applied for and was granted a commission in the Army Service Corps. After serving in Egypt for fifteen months he transferred to the R.F.C. Having trained as a scout pilot, he went to the front in April last, and was acting flight commander. He was reported missing on May 18th, and on Saturday was stated to have been killed. The gallant officer was a splendid sportsman, especially keen on yachting. He married, in 1915, Marguerite, youngest daughter of Mrs. and the late Mr. G. A. Pitcher, 58, Anson Road, N.7.

Lieutenant Reginald Hayes, R.F.C., killed in action, was the second son of Mr. and Mrs. Thomas Hayes, of Sudbrooke Road, Wandsworth Common. He was given his commission in January, 1915, and for two years was attached to the South Lancashire Regiment. Lieutenant Hayes was wounded in November last, and returned to the front three months later. Subsequently he was transferred to the R.F.C., and was in many air fights previous to his death, which occurred on his first flight after his return from leave. He was 19 years of age.

Lieutenant Alexander Perceval Matheson (Val) Matheson, A.S.C., Acting Flight Commander and Pilot, R.F.C., who was killed on July 13th, aged 22, was the surviving son of Mr. Alec P. Matheson and of Mrs. Matheson, of Ardarun, Littlehampton, Sussex, and grandson of the late Sir Alexander Matheson, Bart., of Lochalsh, whom he would eventually have succeeded. Lieutenant A. P. Matheson was educated at Oundle, intending to take up engineering as a profession, but on leaving school he entered the Ontario Agricultural College, Guelph, Canada, taking a four years' course in farming and forestry. When war was declared, he returned to Littlehampton, and received a commission in the A.S.C. two weeks after his arrival. In November, 1916, he was attached to the R.F.C. as pilot, and in February left for the front with his squadron, and was stated to be one of the bravest and best pilots in the squadron. His eldest brother, Captain Ian Kenneth Matheson, Seaforth Highlanders, was killed on May 13th, aged 23, and his youngest brother, Roderick Kyele Matheson, Royal West Kent Regiment, who enlisted when 16 years 10 months in the Royal Fusiliers, was given his commission on his 18th birthday. On going to the front he was attached to the Manchester Regiment, was shot through the chest on September 3rd, and died as a prisoner of war on September 8th, 1916. Mr. and Mrs. Matheson's son-in-law, Lieutenant P. W. Gould, King's Royal Rifles, was killed on August 24th, 1916.

Flight Lieutenant Fabian Pember Reeves, who was reported missing on June 6th last, is new efficially reported killed on that date. He was the only sen of Mr. William

Pember Reeves and Mrs. Reeves, of 43, Cornwall Gardens, S.W., and grandson of Mr. William Reeves, of Christchurch, New Zealand.

Second Lieutenant L. H. Aston, R.F.C., who was fatally injured whilst flying at Acton, on September 6th, was the second son of Mr. and Mrs. F. W. Aston, of Grenville, Durlston Road, Kingston, was educated at Tiffins School, and at the outbreak of war enlisted in the R.N.A.S. After becoming a chief petty officer, he was granted a commission in the R.F.C. He was 28 years of age. His brothers are serving with the Forces.

Major Edgar James Bannatyne, D.S.O., R.F.C. and Hussars, whose death was the result of an aeroplane accident in England, was the only son of Mr. and Mrs. A. E. Bannatyne, of Glen Bevan, Crocm, Co. Limerick. He was educated at Wellington College and Caius College, Cambridge. He joined the 19th Hussars in 1913, and went to France with that regiment in August, 1914. He returned to England in November of the same year on sick leave, during which time he took out his flying certificate. He was in the Experimental Flight at Upavon until February, 1916, when he was sent to Egypt, where he took part in the Darfur Expedition as a flight commander, for which he was awarded the D.S.O. He was afterwards given a squadron at Ismailia, and proceeded later to El Arish. He returned to England last June, and met with his fatal accident while flying at Cirencester on August 30th. He died on September 11th. He was 26 years of age.

Lieutenant Arthur Geoffrey Cronhelm, London Regiment and R.F.C., reported accidentally killed, was the youngest son of Mr. and Mrs. Theodore Cronhelm, of Craigend, Howth, Co. Dublin, and was educated at Christ's Hospital, Horsham, where he was a member of the Cadet Corps and the Bisley Reserve. He had been in Chile, but returned home on the outbreak of the war, and in February, 1915, obtained his commission. He fought in the battles of Neuve Chapelle, Festubert, and Loos, being wounded in the last. Subsequently, he saw service on two other fronts, and recently became attached to the R.F.C. In November, 1916, he married Gladys, daughter of Mr. David M. Steen, formerly of the Ceylon Civil Service.

Lieutenant George Guy Barry Downing, R.F.C., accidentally killed in Scotland on September 4th, aged 23, was the third and youngest son of Mr. and Mrs. G. C. Downing, of Beverley, Llanishen. He was educated at Waynflete, near Reading (Rev. J. H. Wilkinson), and at Charterhouse (Hodg-sonsites, Mr. T. E. Page), where he was a member of the Cadet Corps, and took a great interest in the Scouts. After leaving Charterhouse, he studied art at the Slade School, London. In August, 1914, he joined the Old Public School Boys' Training Camp at Tidworth Pennings, was recommended for a commission, and posted to the Welsh Regiment. He applied for removal to the R.F.C., but accompanied his regiment to France, and was wounded on September 25th, 1915, at the Battle of Loos. He was subsequently transferred to the R.F.C., and after the usual training was in July, 1916, sent to the front, where, on September 2nd, 1916, while flying over the German lines his machine was seriously damaged by German anti-aircraft gun fire and he was wounded. In these circumstances, attacked by two German machines, he succeeded in driving them off, and in landing within the French lines. He was sent home, and when recovering from his wound had a severe attack of diphtheria. Certified fit for light duty in March last, he subsequently acted as instructor at aerodromes in this country. He was recently under orders for the front, but these were countermanded, and he was ordered to return to Scotland as an officer of a training school, where he had been only a few days when the accident happened. He had considerable talent as an artist; a number of his drawings have been reproduced in the illustrated magazine Colour, and he had every prespect of a successful career. He married, in April, 1915, Miss E. E. Evans, youngest daughter of Mr. Edwin Evans, senior, and leaves a son.

Captain L. A. HARDWICK-TERRY, Royal Engineers, Flight Commander R.F.C., was killed on August 31st, when practising at a height of 2,000 ft. In making a vertical dive with the engines full on, one of the wings of his aeroplane became

FLIGHT

detached, and he crashed into a wood. The machine was smashed, but Captain Hardwick-Terry's body was found without even a cut. On the arrival of his comrade a few minutes later, however, life was extinct. Captain Hardwick-Terry was the only child of Mr. and Mrs. E. Hardwick-Terry, of Berkhamsted, and a grandson of the scientist, Alfred Senior Merry. He was educated at Merchant Taylors and Berkhamsted, and from childhood showed remarkable aptitude for science and engineering. He joined the Inns of Court O.T.C., and obtained his commission in the Royal Engineers in February, 1915. After seeing service with the Anzacs in Egypt, he volunteered on his return to England for the R.F.C., and at the time of his death had been flying at the front for nearly eight months.

Second Lieutenant Norman Victor Spear, R.F.C., youngest son of Mr. William Spear, of Woodstock Road, Golders Green, and the late Mrs. C. I. Spear, was killed while flying in Norfolk on August 29th, aged 29. He was born in Norway, and educated at Askes School, Hampstead, where he won the silver medal. At the outbreak of the war he was employed, in the office of the secretary of the Institution of Civil Engineers. He joined the London Scottish in 1911. Not having fully recovered from an operation he was prevented from going to France with his battalion, but was passed for service and rejoined with a draft in November, 1914. He was a sergeant in the Scouts section when he was severely wounded at Loos, on September 25th, 1915, and was awarded the Military Medal. On recovery he was recommended by his commanding officer for a commission, and in September, 1916, he was gazetted to the R.F.C. He obtained his pilot's certificate last March, and at the time of his death was acting as an instructor with a Training Squadron. He and his mechanic lost their lives while bringing back to their station a machine which had been forced to land in another part of the county.

Mr. Frank Hudson, of Camelot, Parklangley, Beckenham, Kent, has received positive information that his son, Captain F. N. Hudson, M.C., the Buffs and R.F.C., who has been reported missing since July 13th, is an unwounded prisoner at Karlsruhe, but that he has, as yet, received no communication from him.

The parents and sister of Second Lieutenant G. A. H. Parkes, R.F.C., of Upper Staplehall, Northfield, Birmingham, reported missing July 15th, have heard from him that he is wounded in left arm, and a prisoner of war in Germany. He is receiving treatment at a special hospital for arm cases, Reserve Lazarett III., Johannisthal, Stettin, Deutschland.

Married and to be Married.

The engagement is announced of Captain John Cemlyn-Jones, Royal Welch Fusiliers and R.F.C., younger son of the late John Cemlyn-Jones and Mrs. Cemlyn-Jones, of Brynbella, Penmaenmawr, and Gwredog, Rhosgoch, Anglesey, and Gwladys, only daughter of John Hinds, M.P., Lord Lieutenant of Carmarthenshire, and Mrs. Hinds, of 71, Ashley Gardens, London, and Neuadd-Deg, Carmarthen.

The engagement is announced between J. Douglas Cowie, Lieutenant, Argyll and Sutherland Highlanders and R.F.C., only son of Mr. and Mrs. J. W. Cowie, Heathside, Putney, and Phyllis May, only daughter of Mr. Stanley W. Duttson, 19, Bramham Gardens, South Kensington, S.W.

A marriage has been arranged, and will shortly be celebrated, between Brigadier-Pilote Robert Louis Donzé, Escadrille N.93, French Aviation Corps, youngest son of Mr. and Mrs. Eugène Donzé, of Santa Babara, California, U.S.A., and Gladys Isabel Mackenzie Penny, only daughter of the late Don Mariano and of the late Mrs. Mackenzie Penny, of Aberdeenshire, Scotland.

A marriage has been arranged and will take place in November (leave permitting) between Captain T. R. Irons, R.F.C., son of Mr. and Mrs. T. Irons, of Sydney, Australia, and Winifred Smith, daughter of Lord and Lady Colwyn, of Colwyn Bay.

The marriage arranged between Lieutenant J. Darell Seal, Essex Regiment, attd. R.F.C., eldest son of Mr. and Mrs. Arthur H. Seal, of Richmond, Surrey, and Phyllis, elder daughter of the late Mr. J. A. Hill, of Antwicks Manor, Wantage, Berks, and Mrs. A. W. Pratt, of Highbury, Wantage, will take place at St. Peter's Church, Wantage, at 12 o'clock on October 11th (leave permitting).

The marriage of Arthur B. Thorne, Lieutenant, R.A.F., attached R.F.C., of Heacham, Norfolk, and Katharine Gwenllian Thursby, of Castle Rising, Norfolk, will take place very shortly at Castle Rising.

Item.

The will of Lieutenant Adolphe Drey, M.C., A.S.C. attached R.F.C., who died in Egypt, has been proved at £4.436.

Lieutenant IVAN BEAUCLERK HART-DAVIES, R.F.C., of Rugby, Warwick, insurance broker, who was killed in an aeroplane accident on July 27th, aged_39, whose will has been proved at £8,679, left £500, his dog, and the effects in his office and residence to his late clerk.



Sheffield's Gift to Newfoundland.

THE biplane which has been subscribed for in Sheffield as a gift to Newfoundland is to be formally handed over to Mr. Walter Long, the Secretary for the Colonies, on September 29th, at Coal Aston. If his duties permit, Lord Derby, Minister for War, will be present.

Searchlight Practice with Balloons.

It is officially announced that from time to time spherical balloons will ascend for searchlight practice on suitable nights from South London and Woolwich. It is not proposed to issue public notices of particular flights.

Aircraft Workers' Wages.

NEGOTIATIONS for fixing conditions of employment in the aircraft industry are, according to the *Times*, making appreciable progress. An agreement is stated to have been reached regarding the maximum week overtime rates and other matters, but some difficulties have arisen with reference to the minimum rate. The Air Board and the employers are said to be in favour of a district minimum rate instead of a national minimum rate, as advocated by the National Aircraft Committee.

Carpentier Still in France.

THERE appears to have been some misunderstanding with regard to Georges Carpentier's movements, for a message from Paris on September 17th states that he has contradicted the report that he is going to the States.

A German Machine in Holland.

A GERMAN biplane is reported to have landed on September 12th at Uilenpol, near Cleves, on the Dutch-German frontier. It is stated that the officer was severely wounded and the corporal killed.

Zeppelin Attacks Swedish Steamer.

A MESSAGE from Ymuiden on September 11th stated that the Swedish steamer "Handsia" on arrival reported having been attacked yesterday afternoon by a Zeppelin, which dropped six bombs in its proximity. The passengers and crew took to the boats, whereupon the Zeppelin disappeared. The passengers and crew then returned to the ship, but on the reappearance of the Zeppelin later they again took to the boats. The Zeppelin, however, shortly afterwards finally disappeared, and the passengers and crew went back to the ship, which proceeded on its journey.

The "Times" History of the War.

In Part 160 of the Times History and Encyclopædia of the War, the use of aircraft is the subject which comes in for attention exclusively. In an interesting manner a sketch is given of the growth of the R.N.A.S. and the R.F.C. from their pre-war establishment, while the extraordinary way in which the output of aeroplanes has been speeded up is also touched upon. From consideration of the chief types of Allied and enemy machines, the writer goes on to deal with the various phases of aerial work at the Front and at sea. In describing the work of the R.N.A.S., reference is, of course, made to the work of the "Blimps" and other airships which have given such excellent service. One feature of the Times history is the splendid illustrations, and the current number is probably one of the best in this respect which has appeared, and it is indeed well worth the eightpence which is charged for it.

A German Derelict.

A German aeroplane, marked "No. 6," left Hamburg on September 4th for Warneminde (Germany). It has since been found in a damaged condition in the Baltic, not far from the Danish port of Langeland, reports the Morning Post correspondent at Copenhagen. The aviators were missing.



he British Dir Services

UNDER this heading are published each week the official announcements of appointments and promotions affecting the Royal Naval Air Service and the Royal Flying Corps (Military Wing) and Central Flying School. These notices are not duplicated. By way of instance, when an appointment to the Royal Naval Air Service is announced by the Admiralty it is published forthwith, but subsequently, when it appears in the LONDON GAZETTE, it is not repeated in this column

Royal Naval Air Service.

Admiralty, September 12th.

Sqn. Cdr. C. D. Breese has been promoted to rank of Actg. Wing Cdr.;

Sept. 8th.
Temp. Lieut. (R.N.V.R.).—F. Atkinson has been reappointed as Acting Lieut.-Cdr., R.N.V.R.; April 1st.
Acting Sub-Lieut. (R.N.R.).—W. S. Watson has been graded as Prob. Ob. Sub-Lieut.; August 8th.
Temp. Mid. (R.N.R.).—V. Vickers has been entered as Prob. Flight Officer (Temp.); Sept. 1oth.

Admiralty, September 13th.

Admiralty, Sept. 10th.

A temporary commission as Lieut. (R.N.V.R.) has been granted to H. S. Slade; Sept. 8th. B. R. Digby and B. G. Rowley have been entered as Temp. Prob. Flight Officer and Temp. Prob. Ob. Officer, respectively; Sept. 8th and

Admiralty, September 14th.

Flight Sub-Lieut. (Acting Lieut., R.N.) M. McMaster promoted to rank of Flight-Lieut., seniority Aug. 15th.

Tre following have I een entered as Prob. Flight Officers (Temp.), seniority as stated: W. S. Grace, J. O. Hawley and L. J. F. Muncey; Aug. 27th. W. T. Ward, J. C. Wallace and J. E. Philbrick; Sept. 12th. R. J. Nixon and H. W. B. Coombs; Sept. 17th.

E. R. Owen entered as Prob. Ob. Officer (Temp.), seniority Sept. 8th.

Ward, J. C. Wallace and J. E. Philbrick; Sept. 12th. R. J. Nixon and H. W. B. Coombs; Sept. 17th.

E. R. Owen entered as Prob. Ob. Officer (Temp.), seniority Sept. 8th.

Royal Flying Corps (Military Wing).

Loudon Gazzite Supplement, September 11th.

The following appointments are made:—
Staff Officer, 3rd Class.—(Graded as a Staff Capt.).—Lieut. A. J. W. Barmby, York R., and to be seed., vice Major H. Elwell, R. Suss. R. (T.F.), and to be Temp. Capt. whilst so employed; June 29th.

Flight Commanders.—Capt. I. C. Barclay, Sea. Highrs.; Aug. 27th. From Flying Officers. And to be Temp. Capts. whilst so employed:—Lieut. E. M. Smith, S.R., Lieut. P. R. Meredith, S.R.; Aug. 1st., 2nd Lieut. D. U. McGregor, S.R.; Aug. 1oth. Temp. Lieut. W. P. MacD. Breitell, General List; Aug. 21st. and Lieut. C. C. Morley, S.R.; Aug. 23td. Lieut. R. N. Wolton, R.F.A. (T.F.); Aug. 24th. Lieut. H. Hulbert, S.R.; Aug. 23th. Lieut. R. N. Wolton, R.F.A. (T.F.); Aug. 24th. Lieut. G. C. Dell-Clarke, M.C., Gen. List. 2nd Lieut. (Femp. Lieut.) C. J. Temperley, Cyclist Bn. (T.F.); 2nd Lieut. (Temp. Lieut.) F. T. Woods, North'n. R. (T.F.); Lieut. E. R. H. Pollak, R.F.A. (T.F.); Temp. 2nd Lieut. B. A. Taylor, Gen. List; Temp. Lieut. E. R. A. Taylor, Gen. List; Temp. Lieut. E. R. A. Taylor, Gen. List; Temp. 2nd Lieut. R. A. Taylor, Gen. List, and to be confirmed in his rank; Lieut. B. J. Lieut. B. J. Jaries, S.R.; Lieut. D. S. Evans, S.R.; 2nd Lieut. T. E. Gorman, S.R.; Aug. 27th.

Flying Officers.—Temp. 2nd Lieut. (on prob.) S. A. Oades, Gen. List, and to be confirmed in his rank; —J. L. Brandon, J. A. Baker, F. Carr, R. S. Greig, G. R. Norman; Aug. 16th. D. W. Saunders; Aug. 10th. C. W. Prinneau, M. A. Peacock; Aug. 20th. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—B. V. Brown, W. J. D. Perritt, T. A. Urwin; 2nd Lieut. A. R. Walker, Gord. Highrs, and to be seed. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—B. V. Brown, W. J. D. Perritt, T. A. Urwin; 2nd Lieut. A. R. Walker, Gord. H

Gen. List; Aug. 25th.

Balloon Company Commanders (graded as Flight Commanders).—Capt. P. G.
Bateman, Lond. R. (T.F.), from a Balloon Comdr.; Aug. 17th. And to be
Temp. Capts. whilst so employed:—Lieut. T. G. G. Bolitho, M.C., S.R., from a
Balloon Comdr.; Aug. 19th. 2nd Lieut. (Temp. Lieut.) R. Hofmeyer, Yorks
L., from a Balloon Officer; Aug. 25th.

Adjutant.—Lieut. G. Philippi, M.C., Dns., S.R., from a Flying Officer, and to
be Temp. Capt. (with pay and allowances as Lieut.) whilst so employed; Aug.
22rd.

23rd.

Special appointment (graded as an Equipment Officer, 1st Class).—Lieut. (Temp. Capt.) O. G. W. G. Lywood. Norf. R., from a Flight Commander, and to retain his temporary sank whilst so employed; Aug. 23rd.

Equipment Officers 2nd Class.—From the third class, and to be Temp. Lieuts. whilst so employed:—Temp. and Lieut. E. L. Ravenscreft, Gen. List; Aug. 17th. Temp. 2nd Lieut. W. J. Bunting, Gen. List; Aug. 23rd.

3rd Class.—2nd Lieut, (on prob.) W. Chapman, S.R., April 11th; Temp. 2nd Lieut. J. L. Burtt, A. Cyclist Corps, and to be transfd. to R.F.C. Gen. List; July 6th. Lieut. C. A. Hudson, R.F.C. (T.F.), and to be seed; Aug. 7th. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—A. Gough, J. D. Graham, D. W. Harvey, R. E. H. Heenan, W. Paddon; Aug. 16th. Temp. Lieut. D. D. Cormack, M.C., R. Scots Fus.; Aug. 24th. Temp. 2nd Lieut. (on prob.) H. Terry, Gen. List, and to be confirmed in his rank; Aug. 26th.

Schools of Aerial Gunnery.

Schools of Aerial Gunnery.

Chief Instructor (graded as a Squadron Commander).—Lieut. (Temp. Capt.),
W. A. Bishop, V.C., D.S.O., M.C., Canadian Local Forces, from a Flight Comdr.,
and to be Temp. Major whilst so employed; Aug. 28th.

Instructor.—Temp. Lieut. (Temp. Capt.) H. M. Sison, M.C., A.S.C., from a Flight Comdr., vice 2nd Lieut. (Temp. Major)-A. M. Vaucour, M.C., R.A.;

Aug. 22nd.

General List.—2nd Lieut. E. D. K. Ives resigns his commission on account of physical unsuitability as a pilot or observer; Sept. 12th.

Temp. 2nd Lieut. H. A. Baxter is removed from the Army, His Majesty having no further occasion for his services as an officer; July 7th.

London Gazette Supplement, September 12th.

London Gazette Supplement, September 12th.

Flight Commanders.—From Flying Officers, and to be Temp. Capts. whilst, so employed:—Lieut. D. H. M. Carbery, R.A.; Aug. 26th. Lieut. S. B. Horn D. Gds.; Aug. 29th.

Flying Officers.—2nd Lieut. (Temp. Lieut.) J. Cullen, Yeo. (T.F.), from Flying

D. Gds.; Aug. 29th.
Flying Officers.—2nd Lieut. (Temp. Lieut.) J. Cullen, Yeo. (T.F.), from Flying
Officer (Ob.) (July 9th, seniority from Sep. 29th, 1916); 2nd Lieut. G. S. Sawyer,
Ind. Army Res. of Off.; July 16th. Temp. 2nd Lieut. W. S. Jamieson, B.W.
Indies R.; July 18th.
2nd Lieut. H. L. C. McConnell, Ind. Army Res. of Off.; Temp. 2nd Lieut.
A. L. Bartlett, B.W. Indies R.; July 19th. Temp. 2nd Lieut. E. H. Lawford,
Gen. List; July 21st. Temp. 2nd Lieut. D. R. Mackie, R.E.; Aug. 2nd.
Equipment Officer, 3rd Class.—Temp. 2nd Lieut. G. Dickson, Gen. List;
Aug. 18th.

Gen. List; July 21st. 1emp. 2nd Lieut. D. R. Manne, List; Equipment Officer, 3rd Class.—Temp. 2nd Lieut. G. Dickson, Gen. List; Aug. 18th.

General List.—Lieut. W. G. McCormack relinquishes his commission on account of physical unsuitability as a pilot or observer; Sept. 13th. Flight Sergt. E. H. Lawford to be Temp. 2nd Lieut.; July 21st.

Toucher Caracter Subblement. September 13th.

London Gazette Supplement, September 13th.

The following temp. appointment is made at the War Office:—
Deputv Assistant Director.—2nd Lieut. (Temp. Capt.) E. E. Robb, R.F.C.,
S.R., from an Equipment Officer, 1st Cl., and to retain his temp. rank whilst so employed; Aug. 18th.

The following appointments are made:—

Squadron Commanders.—From Flight-Comdrs., and to be Temp. Majors whilst so employed: Capt. G. Allen, Conn. Rang.: Feb. 11th. Lieut. (Temp. Capt.) P. C. Sherren, M.C., Can. Local Forces; Aug. 1st. 2nd Lieut. (Temp. Capt.) J. O. Archer, R.F.A., S.R.; Sept. 10th.

Flight Commanders.—From Flying Officers and to be Temp. Capts. whilst so employed: 2nd Lieut. (Temp. Lieut.) G. Aste, A.S.C., S.R.; Aug. 1st Lieut. J. W. Francis, S.R.; Aug. 28th. Lieut. G. C. Rogers, Can. Local Forces; Aug. 31st. Capt. (Temp. Major) A. G. Moore, M.C., Manch. R., S.R., reverts from a Sqdn.-Comdr., and relinquishes his temp. rank; Aug. 27th, seniority Jan. 27th, 1916.

Forces; Aug. 3rst. Capt. (Temp. Major) A. G. Moore, M.C., Manch. R., S.R., reverts from a Sqdn.-Comdr., and relinquishes his temp. rank; Aug. 27th, seniority Jan. 27th, 1916.

Flying Officers.—Temp. 2nd Lieut. (on prob.) B. W. Robinson, Gen. List, and to be confirmed in his rank; July 14th. Temp. Lieut. V. N. F. Surtees, Gen. List, from a Flying Officer (Ob.), seniority July 26th, 1916; Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank: E. S. C. Pearce, C. M. Powell, A. J. Stevens, R. M. Strang; July 31st.

Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank: J. G. Davis, N. W. Hustings; Aug. 13th. Lieut. B. Balfour, Lond R. (T.F.), from a Flying Officer (Ob.); Aug. 14th, seniority Nov. 11th, 1916. Temp. 2nd Lieut. H. A. R. Bizion, Gen. List, from a Flying Officer (Ob.), seniority Oct. 6th, 1916; Aug. 15th. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank: E. A. Bell, T. H. Newsome; Gapt. E. W. firench, Res. of Officers, Capt. R. W. Bell, Can. Inf.; Aug. 16th. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank: R. G. Weller, R. Done, R. V. Cullinan, R. A. Roth, W. C. Carter, W. M. Paterson, J. L. Parren, N. W. Rostron Aug. 20th. S. Adams, F. H. Parker, E. W. Walls; Aug. 21st. 2nd Lieut. V. D. Fernald, R.W. Surr. R., S.R., from a Flying Officer (Ob.), seniority Dec. 2nd, 1916. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank: C. E. Ferguson, W. E. Green, H. A. Yeo, P. A. MacDougall, S. L. Whitehouse, O. E. Sharpe, G. B. Bailey; Aug. 22nd. G. Andrews, W. G. Pudney, C. P. Leckie; Aug. 23rd. 2nd Lieuts. R. H. Little, S.R., and K. W. Cocking, S.R., The surname of Temp. 2nd Lieut. F. S. McClurg is as now described, and not as in the Gazette of Aug. 24th.

Flying Officers (Observers).—Lieut. T. F. Flanagan, Can. Exp. Force, seniority April 23rd; Temp. 2nd Lieut. (on prob.) R. F. Hill, Gen. List, and to be confirmed in his rank, seniority July 22nd. Aug. 25th.

Balloon Company Commander (graded as

Adjutant.—Capt. T. B. Hornblower, R. Suss. R. (T.F.), and to be seed.; July 30th.

Experimental Officer, 2nd Class (graded as an Equipment Officer, 2nd Class).—
Lieut. P. B. Moxon, S.R., from a Balloon Officer; Aug. 24th.

General List.—The following are transfd. from M.G. Corps: Temp. Capt.

M. G. Millar, Temp. Lieut. H. T. Woodhead, Temp. Lieut. P. Middlemas, Temp.
Lieut. (2nd Lieut., Durh. L.I. (T.F.)) A. W. Sutton; Feb. 21st. 2nd Lieut.

H. O. Fellowes, Sea. Highrs. (T.F.), to be Temp. Capt. (without the pay or allowances of that rank) whilst employed as Adjt.; Aug. 5th. Temp. 2nd
Lieuts. relinquish their commissions on account of physical unsuitability as
Pilots or Obs.: E. K. Greswell, M. Hopkins; Sept. 14th. Temp. 2nd Lieuts.
(on prob.) are confirmed in their rank: P. G. Angood, A. H. Waterman, J. B.
Pirie. N.C.Os. from Yeo. (T.F.), to be Temp. 2nd Lieuts.: Sergt. S. Trancis, Sergt. C. H. Arnison; May 26th, A. Heywood, late Lieut., Defence
Force of the Union of S. Africa, to be Temp. 2nd Lieut. (on prob.); Aug. 24th.
Sergt.-Major S. Crowther, from H.A.C. (T.F.), to be Temp. 2nd Lieut. (on prob.);
Aug. 30th.

London Gazette Supplement, September 14th.

London Gazette Supplement, September 14th. The following appointments are made:—

Wing Commander.—Capt. (Temp. Major) J. C. Halahan, Res. of Officers, from a Sqdn. Comdr., and to be Temp. Lieut.-Col. whilst so employed (Sept.

Ist). Special Appointments (graded as Squadron Commanders).—From Flight Comders, and to be Temp. Majors whilst so employed: Temp. Caut. S. E. Parket, Gen. List; (Aug. 23rd). Lieut. (Temp. Capt.) C. H. Nicholas, S. Wales Bord., S.R.; Aug. 27th.

Flying Officers.—Temp. 2nd Lieuts. (on prob.), Gen. List and to be confirmed in their rank: L. A. Payne; Aug. 24th. C. C. Morse; Aug. 26th. W. J. Seward; Aug. 27th.

Flying Officers (Observers).—2nd Lieut. L. V. Foster, Notts and Derby R., S.R.; Aug. 25th, seniority Mar. 6th, and to be seed. 2nd Lieut. R. F. W. Sheraton, Yeo., T.F.; Aug. 24th, seniority April 1st, and to be seed.



2nd Lieut, R. C. W. Jervois, R.G.A., S.R., seniority April 13th; 2nd Lieut. E. J. Halliwell, R.F.A., S.R., Seniority May 10th; 2nd Lieut. T. P. Fox, R.G.A., S.R., seniority May 12th; 2nd Lieut. L. Abraham, Yeo., T.F., seniority May 15th, and to be seed.; Lieut. (Acting Capt.) C. Watson, M.C., York. R., seniority May 18th, to relinquish his acting rank, and to be transdi, to R.F.C., Gen. List; 2nd Lieut. C. W. Pearson, North'd Fus., T.F., seniority June 8th, and to be seed.; Aug. 25th. The surname of Lieut. H. St. G. Carteret is as now described, and not as in Gazetle of Aug. 28th.

Bquipment Officer, 2nd Class.—Lieut. G. W. Dobson, Hrs.; Sept. 1st.

General List.—To be Temp. 2nd Lieuts. (on prob.): R. T. B. Wynn, E. W. S. Jacobi; Aug. 24th. Temp. Sgt. Major L. Howe, from R.F.C.; Sept. 1st. C. H. Bell; Sept. 3nd. Sergt. R. R. Trout, from R.F.C.; Sept. 7th.

Supplementary to Regular Corps.—and Lieuts. to be Lieuts.: E. A. Kelly, (Temp. Capts.) A. W. Briggs, W. G. Pender, M.C., T. Maxwell-Scott, M.C., E. Henty, P. R. Burchall and A. T. Harris, (Temp. Lieuts.) W. H. Date, E.N. Layton and C. T. Imman, (Temp. Major) C. S. Duffus, M.C., (Temp. Capt.) H. A. Wood, M.C., (Temp. Capt.) J. S. Beatty, (Temp. Lieut.) H. R. Spence, (Temp. Capt.) R. H. Jarvis, M.C., W. L. Scandrett, J. H. Kelly, S. F. Heard, R. D. Clinch and C. J. Campbell, (Temp. Lieut.) B. J. Nicholson, C. H. Howell, S. A. Alder, (Temp. Capt.) P. C. Garratt, M. M. Sisley, (Temp. Capt.) H. B. Prior, F. H. Hodgson, (Temp. Lieuts.) H. L. Saunders, C. R. Fry, G. G. Fiddes, (Temp. Capt.) E. L. P. Morgan, (Temp. Lieut.) H. D. Manley and R. G. Heyn, S. W. Carline, (Temp. Capt.) E. P. Morgan, (Temp. Lieut.) H. D. Manley and R. G. Heyn, S. W. Carline, (Temp. Capt.) E. C. Bailey, D.S.O., F. E. Sargood and C. N. Russell, C. E. S. Russell, F. H. C. O'Beirne, F. Alexander, (Temp. Capt.) N. Kemsley and J. D. Stodart, L. A. Tapper, G. Lea, (Temp. Lieut.) L. S. Newns, (Temp. Capt.) A. D. Spiers, (Temp. Majors) C. R. Huggins and A. K. Tylee, P. R. Meredith, (Temp. Lieut.) R.

London Gazette Supplement, September 15th.

Attached to Headquarter Units:—

Brigadier Commander.—Major (Temp. Col.) T. C. R. H gg ns., R. Lanc. R., and to be Temp. Brig.-Gen. whilst so employed; Sept. 1st.

The following appointments are made:—

Wing Commander.—Capt. (Temp. Major) C. T. Maclean, M.C., R. Sc. Fus. from a Sqdn. Comdr., and to be Temp. Lieut.-Col, whilst so employed; Aug. 21st.

from a Sqdn. Comdr., and to be Temp. Lieut.-Col. whilst so employed; Aug. 21st.

Flight Commanders.—From Flying Officers, and to be Temp. Capts. whilst so employed: Temp. Lieut. E. S. Moulton-Barrett, Gen. List; Lieut. C. A. Lewis, M.C., S.R.; 2nd Lieut. (Lieut., Canadian Milita) L. P. Watkins, S.R.; Temp. 2nd Lieut. G. G. Böyton, Gen. List; Aug. 1st. Temp. Lieut. N. Goudie, Gen. List. Lieut. H. H. Griffith, S.R.; Aug. 27th. Temp. 2nd Lieut. H. Kirton, Gen. List; Sept. 1st.

Flying Officers.—2nd Lieut. A. Mann, A.S.C., T.F.; Jan. 4th. Capt. L. W. Jarvis, Midd'x R., T.F., and to be seed.; June 16th. Lieut. A. Dodds, N. Staff. R., and to be seed.; June 18th. Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank: E. A. Clear; June 27th. C. H. Arnison; June 28th. F. B. Farquharson, G. H. Stuart; June 29th. G. V. L. Lewis; July 23rd. T. L. Johnson, A. R. Browne; Aug. 21st. T. V. Lord, G. G. Johnstone; Aug. 21st. Lieut. H. L. Symons, Canadian Engineers; Aug. 23rd. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank: J. H. Pottinger, E. A. Latter, E. Scholtz, D. Miller; Aug. 25th. J. F. Ridgway, F. T. Jackson; Aug. 27th. The name of Temp. 2nd Lieut. B. C. Webb-Windle, Gen. List, is as now described, and not as in the Gazette of July 24th.

B. C. Webb-Windle, Gen. List, is as now described, and not as in the Guarmof July 24th.

Balloon Company Commanders (graded as a Squadron Commander).—Capt.
Balloon Company Commanders (graded as a Squadron Commander).—Capt.
G. F. H. Faithfull, Ind. Army, and to be Temp. Major-whilst so employed;
Aug. 30th, but with seniority, without pay or allowances, Dec. 5th, 1916.
Graded as a Flight Commander.—Lieut. T. G. Thornton, York R., T.F., from a Balloon Comdr., and to be Temp. Capt. whilst so employed; Aug. 30th.
Balloon Officers.—2nd Lieut. C. T. Smith, North'd Fus., and to be seed.;
May 17th. Lieut. W. N. Sheffield, Cabadian Gen. List.; Temp. 2nd Lieut.
(on prob.) R. E. Vale, Gen. List, and to be confirmed in his rank; Aug. 8th.
Capt. F. L. von Stieglitz, Conn. Rang., and to be seed.; Aug. 21st.
Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:
R. O. Smart, M. E. Starles.

General List.—Sergt. J. F. Ridgway, from R.F.C. to be Temp. 2nd Lieut.;
Aug. 27th.

General List.—Sergt. J. F. Ridgway, from R.F.C. to be Temp. 2nd Lieut.; Aug. 27th.

Supplementary to Regular Corps.—2nd Lieuts. to be Lieuts.: N. Pellew, (Temp. Capt.) C. S. Ross. P. K. Turner, (Temp. Lieut.) K. D. G. Collier, G. McKerrow, (Temp. Major) A. T. Watson, (Temp. Capt.) J. S. Shaw, L. P. Watkins, M.C., R. S. Carroll, G. H. Armstrong, (Temp. Capt.) A. de B. Brandon, D.S.O., M.C., (Temp. Capt.) J. C. Griffiths, (Temp. Capt.) A. C. Hatfield, (Temp. Capt.) K. D. Abercromby, (Temp. Capt.) F. C. Rowe, (Temp. Major) S. S. Kennedy, (Temp. Lieut.) F. Murphy, (Temp. Capt.) L. C. Angstrom, R. Buck, (Temp. Capt.) T. Worswick, (Temp. Capt.) L. Bawn, E. R. Yates, (Temp. Capt.) R. Holloway, F. J. Miller, B. H. M. Jones, C. P. V. Roche, (Temp. Capt.) R. Holloway, F. J. Miller, B. H. M. Jones, C. P. V. Roche, (Temp.

Capt.) A. F. Palmer, (Temp. Capt.) E. Stokes, A. Champion, M. J. Fenwick, P. Thompson, F. A. Corbett, F. Stoner, (Temp. Lieut.) R. N. Rowell, (Temp. Capt.) F. B. Burton, (Temp. Lieut.) H. J. de C. Moore, (Temp. Lieut.) R. H. Whittington, (Temp. Capt.) W. L. Hay, D. E. Nicolle, C. L. L. C. Brock, (Temp. Capt.) I. N. Draoopoli, (Temp. Lieut.) F. A. Harper, (Temp. Lieut.) T. C. Thrupp, (Temp. Lieut.) P. Adams, (Temp. Lieut.) H. G. Gibbs, (Temp. Capt.) J. L. Luntley, A. S. Hett. S. Scarborough, (Temp. Capt.) T. Goulburn, (Temp. Lieut.) A. L. Butcher; July 1st. 2nd Lieut. (on prob.) W. L. Richards is placed on the Retired List on account of ill-health; Sept. 16th. 2nd Lieut. (on prob.) F. C. Thomas is confirmed in his rank; B. Heath, from School of Military Aeronautics, Oxford, to be 2nd Lieut. (on prob.); Aug. 16th.

General List (R.F.C.).—Temp. 2nd Lieut. S. H. C. Knapp resigns his commission; Sept. 16th.

London Gazette Supplement, September 17th.

Heath, from School of Military Aeronautics, Oxford, to be 2nd Lieut. (on pools Aug. 16th).

Itentaling from School of Military Aeronautics, Oxford, to be 2nd Lieut. (on pools and 16th).

Itentaling from Sept. 16th.

London Gaztite Supplement, September 17th.

The following appointments are made :—

Flight Commanders,—From Flying Officers, and to retain their temp. rank while so employed: Temp. Capt. G. H. Gordon, Gen. List, Lieut. (Temp. Capt.) G. G. Hubbard, S.R.; Sept. 1st. Temp. 2nd Lieut. C. O. B. Beale, D.S.O., Gen. List, from a Flying Officer, and to be Temp. Capt. while so employed: Sept. 2nd.

Flying Officers.—Temp. Capt. R. M. Williams, Garr. Bu, R.W. Fus., and Evyng Officers. And C. List. July 17th. 2nd Lieut. J. H. Morris, R.A., and to be excit. C. Gen. List. Temp. 2nd Lieut. (on prob.), Gen. List, and to be tonfirmed in their rank: R. Main; Aug. 16th. H. Izard, and Lieut. J. H. Morris, R.A., and to be excit. C. Gen. List. Aug. 2st. Temp. 2nd Lieut. (on prob.) S. E. Taylor, Gen. List, and to be be confirmed in their rank: R. R.R.C., and to be transfid. to R.F.C., Gen. List, Temp. 2nd Lieut. C. Muder-Chaleau, attd. K.R.R.C., and to be transfid. to R.F.C., Gen. List, Temp. 2nd Lieut. Con prob.) C. S. Emery Gen. List, from a Flying Officer (Ob.), seniority Oct. 1sth., 19tf; Aug. 24th. 2nd Lieut. (on prob.) C. S. F. Wickenden, S.R.; Aug. 2sth. Temp. and Lieuts. (on prob.) H. W. Biddington, Gen. List, and to be confirmed in their Cank: S. R. Son J. A. S. R. Son J. A. G. S. R. Wickenden, S.R.; Aug. 2sth. Temp. 2nd Lieut. (on prob.) H. V. Biddington, Gen. List, and to be confirmed in his rank; 2nd Lieut. The March S. R. S. R. Son J. H. Humphres, and to the Canker S. R. S. R. Son J. H. Humphres, and to the Canker S. R. S. R. Son J. H. Humphres, 2nd Lieut. C. S. Fuller, M.C., Manch. R., and to be transfid. to R.F.C., Gen. List, 2nd Lieut. S. R. Lieut. S. R. Son J. J. H. San J. S. R. Son J. J. H. S. Son J. J. Lieut. S. R. Son J. J. H. San J. S. Son J. J. H. San J. S. Son J. J. J. H. San J. S. Son J. J. J. J. J

Aeronautical Inspection Department.

London Gazette Supplement, September 12th.

Temp. Hon. Lieut. A. B. Rogers to be Temp. Hon. Capt. whilst employed as Inspector A.I.D.; Dec. 9th, 1916.



THE FRONT. AIRCRAFT WORK AT

OFFICIAL INFORMATION.

Admiralty, September 11th. "During the last few days, owing to unfavourable weather, operations by naval aircraft have been restricted. In operations which have taken place, however, one enemy aircraft was shot down and another driven down out of control. Bombs have been dropped on Houttave aerodrome, but owing to bad visibility results could not be observed. All our machines have returned safely."

"On the 10th inst. clouds and thick haze again prevailed and made work difficult. In spite of this observation was carried out for our artillery, both by our aeroplanes and our balloons. During the day our machines bombed two enemy aerodromes near Cambrai and the rest billets near Douai, and during the night of the 10-11th inst. dropped bombs on an aerodrome and searchlights near Courtrai. In air fighting yesterday three German aeroplanes were brought

down and seven others were driven down out of control. Of these two were brought down and one driven down by one pilot. In one case this pilot descended to within 50 ft. of the ground and set fire to the machine he had brought down. He then regained our side of the line, still flying at 50 ft., although attacked by three hostile machines. Three of our machines are missing."

General Headquarters, September 12th.

"After mid-day on the rith inst. the bad visibility of the morning improveds and aerial activity became great. Very successful artillery and photographic work was carried on continuously.

"During the day 281 bombs were dropped on various targets, including two aerodromes south of Lille and two aerodromes and a large ammunition dump in the vicinity of Roulers.

"During the night 8 5 bombs were dropped on railway stations, ammunition



dumps, and trains in the Courtrai area, making a total weight of over six tons

during the 24 hours.

"Fighting was very vigorous, and strong formations of enemy scouts were encountered by our patrols. Artillery and photographic machines working well over the enemy country were also frequently engaged.

"Seven hostile machines were brought down in combat, and 12 were driven down out of control. In addition, one German machine was shot down by our anti-aircraft guns. Eight of our aeroplanes are missing."

"During the last 24 hours many fighter patrols have been carried out by the Royal Naval Air Service. One of these patrols engaged two enemy spotting machines, one being shot down, the machine crashing into the sea, the other landing almost intact in our lines. The pilot and observer of the latter machine were made prisoners. Two other enemy machines were attacked and driven down during a sweep by our machines. In conjunction with a bombing raid nine encury machines were encountered, five of which are believed to have been driven down out of control. Bombing raids were carried out by night on: St. Denis Westrem aerodrome, Gontrode aerodrome, Bruges docks, Thourout railway junction, railway objectives near Ghent. Several tons of explosives were dropped. During the afternoon of Sept. 11th a bombing raid was made on Sparappelhoek, Thourout aerodrome, and Engel ammunition dump. At Sparappelhoek, Thourout a direct hit was observed on a hangar. At Engel ammunition dump a large fire was caused. The bombing formation was attacked by enemy machines, and one of the latter was shot down smoking and out of control. Many tons of explosives were dropped. In all the operations referred to all machines and pilots returned safely."

**During the 11th and 12th a

Admiralty, September 13th.

"During the 11th and 12th inst., in spite of poor visibility, the following bombing raids by naval aircraft have been carried out: Thourout aerodrome and dumps, on which objective several tons of bombs were dropped, and heavy explosion was caused. Bruges Docks, where an explosion was also caused. A further bombing raid was attempted on Bruges Dock, but owing to thick clouds the shipping alongside Zeebrugge Mole was attacked instead. A direct hit was made on a large destroyer, and several direct hits on seaplane sheds and mole, causing a fire. All our machines returned safely."

"In spite of bad visibility some artillery work was carried out by our aeroplanes yesterday, and photographs were taken. Bombing of the enemy's aerodromes, ammunition dumps, and the railway stations was continued by day and night. Three enemy machines were driven down out of control. Two of our machines are missing."

"A bombing raid was carried out during the night of 12th-13th by the R.N.A.S. on the following military objectives: Ghistelles aerodrome; Thourout aerodrome. A large quantity of bombs was dropped. All machines returned safely."

"On the 13th inst. the weather was again very uniavourable for aerial observation. Eighty bombs were dropped by our aeroplanes on the enemy's billets east of Lens, and his troops in the open and in their trenches were barraged by machine-gun fire from a low altitude. There was a certain amount of fighting under difficult conditions. Three of our machines are missing."

War Office, September 15th. "Salonica.—During the past week our aeroplanes have bombed the enemy's encampments and dumps at Rupel, Vetrina, and Cernista (Struma front) causing considerable damage. Otherwise there is nothing to report."

"On the 14th inst. the cloudy weather continued with a strong west wind, making artillery observation difficult and greatly favouring the enemy's machines in combats. Eleven heavy bombs were dropped by us on the railway station north of Charleroi and 75 bombs on railway stations and billets and encampments nearer the lines. Three enemy machines were brought down, one falling behind our lines, and six driven down out of control. Four of our machines are missing."

General Headquarters, September 16th.

"On the 15th inst. there was no improvement in the weather, and a strong west wind still rendered difficult the return of our machines from bombing raids and from fighting behind the enemy's lines. Artillery and photographic work was continued, and 3 tons of bombs were dropped on two hostile acrodromes east of Courtrai, on an aerodrome and an ammunition dump northeast of Cambrai, and on hostile billets and hutments. Six German machines were brought down in air fighting, and two driven down out of control. Four of our machines are missing."

Admirally, September 17th. "Naval aircraft carried out a bombing raid on September 17th. shipping between Ostend and Blankenberghe. Bombs were dropped on destroyers and trawlers or drifters. One large destroyer was hit amidships, and one, probably two, out of a group of four trawlers, was sunk. In the evening during a late patrol, one of our seaplanes was attacked by two seaplanes, which were engaged by our escorting aeroplanes, and one shot down in flames, the other being chased towards some enemy destroyers. At about 10 a.m. yesterday (16th) a patrol engaged a formation of enemy aircraft, destroying one, and probably a second."

probably a second."

General Headquarters, September 17th.

"On the 16th inst. visibility improved, and a good deal of successful artillery work and photography was accomplished. During the fine intervals enemy aircraft were active, and were again greatly favoured by the strong west wind.

"In the course of the morning hostile machines dropped 50 bombs behind our lines. Very little damage was done.

"Our areoplanes dropped 143 bombs on a German aerodrome and on hostile billets, and fired many thousand rounds from their machine guns at various targets on the ground. In particular a body of 2,000 German infantry was engaged with machine-gun fire from a height of 100 ft. and scattered

"Six German aeroplanes were brought down in combat, and four others were driven down out of control. In addition one hostile machine was shall down in our lines by anti-aircraft gun fire. Eight of our aeroplanes are missing."

Paris, September 11th.

"Last night German aeroplanes bombarded the region of Dunkirk. Bombs fell on a hospital, and about 15 women were wounded.

"On the 10th three German aeroplanes were oftought down as the result of combats with our pilots. A fourth German machine was destroyed by the fire of our special guns."

"Salonica.—British aeroplanes bombarded successfully enemy camps near Runel."

Rupel.

Paris, September 12th. "Enemy acroplanes bombed the region of Dunkirk. victims among the civil population."

Paris, September 13th.

"Last night German aeroplanes dropped bombs in the region of Dunkirk.
Our airmen successfully dropped bombs at Hoglet, Portemark, Gits, Gelte,
Lindenken, Staden, and on the aviation grounds north-east of Thourout."

"During the days of the 13th and 14th four German aeroplanes were brought down in aerial fighting."

"In the course of yesterday four German aeroplanes and a kite balloon were brought down by our pilots, and a sixth hostile machine was brought down by our anti aircraft guns. In addition six other German aeroplanes were seriously damaged as the result of combats with our aviators, and fell within their own lines. Our bombarding squadrous showed themselves particularly active during yesterday and last night. Many raids were carried out by our machines, which dropped 15,000 kilogrammes (about 15 tons) of bombs on enemy establishments, including: the barracks and munition factories of Stuttgart, the aviation camp at Colmar, the store buildings at Logelbach, the military establishments south of Metz, the railway station at Thionville, the munition factories of Uckingen, the railway station of Sarrebourg, &c."

Belgian.

"During the last two days our aviators have carried out 65 flights, taken numerous photographs, carried out reconnaissances, and engaged in several flights. This morning an enemy aviator was brought down in our lines, and a second was forced to land in the enemy lines in the direction of Schorbalckse."

"Several of our cantonments were also bombed by enemy aviators."

"Our cantonments have also been bombed by enemy aviators."

"An enemy aeroplane, brought down by our anti-aircraft fire, fell in the neighbourhood of Duino."

Rome, September 15th.

"On the Carso the enemy's lines of communication were bombarded by our airmen with about 3 tons of bombs. During an aerial combat an enemy aeroplane was brought down in flames and fell in the Auzza Torrent, Avscek.

The pilots were killed."

"Troops massed in the Ravnica area (east of Monte San Gabriele) were bombarded with about 2½ tons of bombs by two of our air squadrons."

Petrograd, September 11th "A squadron of our aeroplanes, consisting of five machines, bombarded enemy depots and butments an the region of Dubrova, to the south-east of Kovel. Ten lôads of bombs were dropped. In the same region an 'Hia Murametz' aeroplane dropped bombs on enemy convoys and batteries. On the Roumanian front four aerial combats took place on Sept. 9, as a result of which four enemy aeroplanes were forced to descend in their own lines. Enemy aeroplanes dropped bombs on the stations of Zamirie and Radziviloff."

Petrograd, September 13th "In the direction of Kezdi-Vazargelonzed our aviators carried out a raid on the concentration points of enemy reserves, and dropped bombs. In the course of aerial encounters with enemy aviators an enemy aeroplane was forced to descend precipitately near Hordja. Another machine was brought down by Aviator Lieut. Blullard, near the village of Oitoz. Both these machines fell in the enemy's lines. On the shore of Lake Racim the enemy hydroplane station was bombed by our airmen, who dropped nearly 9 poods of bombs (about 300 lbs.)."

(about 300 lbs.)."

**Petrograd, September 14th.

**Baltic Sea.—Between September 9th and 12th the enemy showed only slight activity. During this period at various points along the eastern coast of the Gulf of Riga enemy scouting aeroplanes appeared along our coast, at the mouth of the Gulf of Finland and the mouth of the Gulf of Riga.",

"On September 13th a series of aerial engagements took place. Capt. Kazakoff brought down his seventeenth enemy aeroplane in the region of Husiatyn. The enemy airmen were taken prisoners. An enemy aeroplane was also forced to descend, and came down in the enemy's lines. We suffered no losses. On September 13th our pilots successfully dropped 37 poods (1,300 lbs.) of bombs, which caused a conflagration in the region of Horosemkov, between Husiatyn and Trembovla. On September 10th our artillery brought down an enemy aeroplane in the region of Diakoneshti, in the plain of the River Trotuz. The enemy pilots were made prisoners."

Petrograd, September 16th.

"In the region north of Lake Petchur our scouts found the remains of a German burnt aeroplane, which had been brought down by our rifle and gun fire on September 8th."

German.

"Yesterday Lieut. Vose shot down three enemy aviators. He has thereby increased the number of his aerial victories to 45."

Berlin, September 12th. own. One of them was "Nineteen enemy aviators have been brought down. brought down by Lieut, Voss (46th aerial victory)."

Berlin, September 15th. "Lieut, von Bulow brought down his twentieth adversary in aerial battle,"

"Two aeroplanes were shot down by one of our pursuing echelons out of the enemy aerial squadron which bombarded Colmar twice yesterday. In addition to this, the enemy lost 16 aeroplanes.

"Senior Lieut. Berchold brought down two enemy aviators in aerial combats on September 15th, and Senior Lieut. Schleich has brought down three opponents in aerial battles during the last two days."

Austrian.

Austrian. Vienna, September 13th.

"An Italian squadron shelled the ancient monastery of Pojani from the sea. Airmen also bombed Pojani, killing several inhabitants."

Turkish.

Constantinople, September 6th.

On the night of September 3rd our seaplanes dropped bombs on the enemy aerodrome at imbros. In spite of violent artillery fire all our machines returned undamaged."

"Our aerial squadrons successfully dropped bombs on the port of Mitylene, as well as on an aerodrome situated on that island. A lighthouse on an islet east of Chios was destroyed by our artillery.

Sofia, September 2nd.

"An enemy aeroplane was brought down by our anti-aircraft fire near Demir-Hissar, and fell behind the British lines."

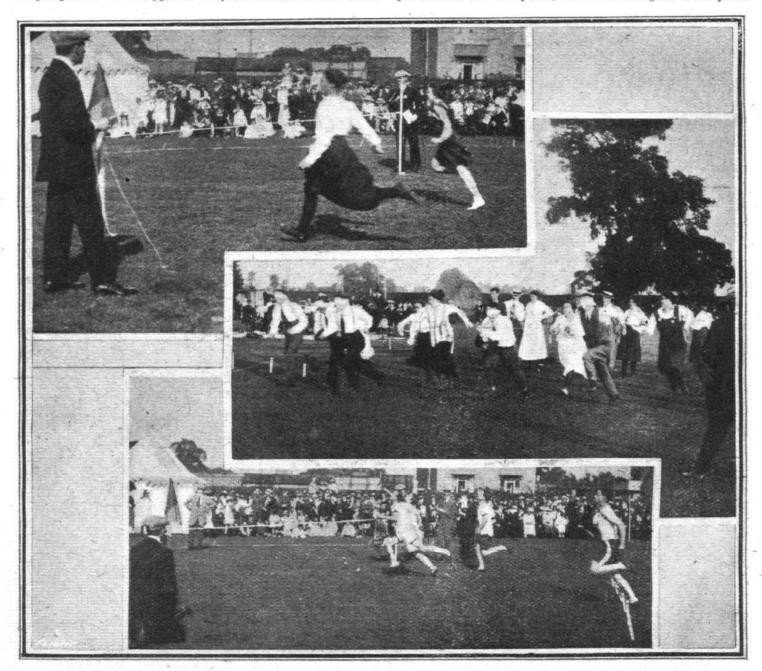


SOPMAH SPORCS

A BEAUTIFULLY warm sunny afternoon gladdened the hearts of the Sopwith workers and their friends at the first annual house sports, in aid of the Flying Services Fund, held at the Old Kingstonians ground at Norbitonion Saturday last. Lying well out in the country, the ground is, nevertheless, so get-atable from all directions, either by train or tram, that that fact, coupled with the fine day, brought together some thousands of visitors, the stands and grounds being closely packed, the spectators encircling the five-lap course completely. Some excellent sport was witnessed in the various events, of which there were a goodly number—almost too many, in fact; for good as a sports meeting may be, when once 6 o'clock has been passed there comes a tiring and a falling-off in interest and of onlookers. The falling-off, however, was not with the competitors themselves, who held their end up, right to the finish. Confirmation of this is given in the fact that some events had to be postponed. If a suggestion may be made, it is that next

year all the heats in the works competitions should, be run off in advance of the meeting. Perhaps, the best event of the day, as affording a thrilling finish, was, the One Mile Open, which brought out a great entry and provided a win for the scratch man, Mr. A. H. Nichols, Surrey A.C. and International Champion, who, running with great skill and judgment, commenced to catch his men in the second lap and got through 50 yards from the tape, only to be challenged by the limit man, Mr. F. Maxim, Finchley Harriers, who, coming again in magnificent style, ran breast and breast for the last 10 yards, to be beaten right on the tape by about 6 ins.

The Relay race also produced a rare 'turn of speed, where one usually expects a little less in the matter of pace. Every man as he received his staff from his companion started off at a sprint, which was held each time for the distance that had to be run. Indeed the pace over the quarter mile and 220 yards, was more fitting for a 100 yards



AT THE SOPWITH AVIATION WORKERS' SPORTS.—1. A close finish in the Ladies' 100 Yards Works' Championship. 2. The "Chariot Race," in which the "horses" are blind-fold and rely on the "coachman's" guidance. 3. On the tape in the final for the Men's 100 Yards Works' Championship. Mr. V. W. Derrington and Mr. J. Whitehorn running their dead heat.





THE SOPWITH AVIATION WORKERS' SPORTS.—Men and Maids of Mind and Muscle. Top: Sopwith team winning for their firm. Middle: Sopwith men getting their opponents well over. Bottom: The Blériot team of ladies, who put up a grand struggle for their firm's prowess.





The hair-dressing competition at the Sopwith sports, in which the mere male had to undo his fair partner's hair and re-dress it in five minutes. Inset is the winning effort of Mr. Stevens and his sister.

sprint. This event must have been run in excellent time. Tug-of-war, of course, engaged the strong and mighty for the better part of two hours, and girls and men did their best for their various departments and firms in this mighty struggle. The Sopwith teams of both sexes were victorious, and have much of which to be proud in their wins, for the opposing teams were the pick of doughty men and lassies, the beating of whom was a credit to the victorious and no discredit to the vanquished. The ladies' hairdressing competition caused lots of fun. In this each gentleman had to undo and re-dress the hair of his fair partner, and the way it was accomplished was an eye-opener to many onlookers. The winners were Mr. Stevens, and his sister, Miss Stevens, and the resulting coiffure would hardly have disgraced Truefitt. Midway in the afternoon a "Camel" appeared overhead, and the pilot, whose name was not on the programme, put up one of the most hair-raising stunt flights it has been our pleasure to witness. Loops, side-twists, apple-turnovers, spiral dives, and many evolutions for which names cannot be invented, were the order, and these were done at such comparatively low altitude that all had a chance of witnessing the grand display. Once or twice during the display the machine made a great swoop right down into close proximity to the ground, only to dart up again over the grand stand just when everybody was preparing to duck their heads.

As might have been expected, the 100 yards Works Championship for men brought eager competition, for to



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A couple of the #
''workers'': #
Mr. V. W. Derrington, Hon.
Sec., and his coworker, Miss C. #
Hopkins, Hon. #
Asst. Sec. #

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The lighter side.



be 100 yards champion of one's works is something to strive for in the matter of athletics. The final for this event was a great race, and resulted in a dead-heat between V. W. Derrington and J. Whitehorn, J. Grant being close up. Unfortunately, it was not possible to run this tie off on Saturday, so the spectators were unable to witness what would in all probability have been another tight finish. "Apple" bobbing for boys caused great fun in execution. The competitors had to run a distance, get an apple out of a trough of water with their teeth, run a short distance, lie down and eat a bun from the ground with their hands behind their back, and run to the post. It may be that the committee were desirous of creating all the fun possible in this event, or it may be that the fruits of the allotment overtopped the fruits of the orchard, in any case potatoes were substituted for apples, with the result that they sank to the bottom of the trough, when an apple would have floated. This necessitated the boys having to duck their heads completely under water in order to secure the tuber. The fun may be imagined. An unusual event, and one that was watched with breathless interest, was a wrestling match between Fred Knight, late bantam weight and featherweight champion, and G. Appleton, of Sopwith's, also a champion gymnast. Knight gained the two falls after a great struggle and many narrow escapes.

A full list of the results as officially returned is appended :-Boys 14-16 100 yards Scratch .- I, Arnold; 2, Murray;

3, Nizzy.

Veterans over 41 100 yards Handicap.—1, T. Smith; 2, J. Weller; 3, J. Rimmer.

Ladies' 100 yards Works Championship .- 1, Miss Cremer;

2, Miss Moatt; 3, Miss L. Hooper.

Men's 100 yards Works Championship.—Dead heat, V. W. Derrington and J. Whitehorn; 3, J. Grant. Time, 10; secs. Boys 14-16 350 yards Scratch.—1, Arnold; 2, Murray; Time, 10 secs.

Apple Bobbing.—Gough; Roach; Little.

Men's 440 yards Works Championship.—1, Whitehorn;
2, Bridger; 3, Driver. Time, 561 secs.

Open Tug-of-War.—1, Sopwith's; 2, Napier's. 440 yards Munition Works Handicap.—1, Manton; 3. Sweet.

One Mile Handicap, Munition Workers .- 1, A. H. Nicholls (scratch); 2, F. Maxim (118); 3, J. H. Hook (175). Time, 4 mins. 294 secs.

Chariot Race.—I, Mr. Grant and Miss E. Stephens; Mr. Steeman and Miss Drakeford; 3, Mr. Lewis and Miss Chariot Race .-Russell.

Hairdressing Competition.—1, Mr. Stevens and Miss Stevens; 2, Mr. Evans and Miss Redfern; 3, Mr. Draper and Miss Mills.

100 yards Munition Workers' Handicap .- 1, Baker (R.A.F.); Hicks (Finchley Harriers); 3, Pendlebury (R.A.F.).

Time, 10 secs.

100 yards Invitation Race.—1, H. R. Wicks (R.N.A.S.);
2, Sergt.-Major Mawby (R.F.C.). Time, 10\frac{1}{5} secs.

One Mile Walk (Works Championship).—1, Marder; 2, Wilson; 3, Spriggs. Time, 8 mins. 55 secs.

One Mile Munition Workers' Relay.—1, Vickers (Crayford); 2, Vickers (Erith); 3, Napiers. Time, 3 mins. 58 secs.



Some interested spectators at the Sopwith Sports included Miss May Sopwith, Mr. Sigrist, Mr. Kouper, Mr. Hyland and Lieut. Gullen.

AERONAUTICAL SOCIETY OF GREAT BRITAIN.

THE following have been elected to membership of the Society in the various grades:

Fellow.—Harris Booth, B.A., A.M.Inst.C.E., F.R.Met.Soc.,

A.F. Ae.S.

Associate Fellows.

A. J. S. Pippard, M.Sc., A.M.Inst.C.E. Capt. Hon. W. F. Forbes Sempill, R.F.C. M.I.C.E., M.I.Mech.E., M.I.E.E., M.Sc. A. L. Anderson. G. E. Bradshaw. H. Lord.

Members.

G. D. I. Seneviratne. A. F. Martin. Lieut.-Col. R. Mandeville Rodwell, R.F.C. H. E. Latimer-Voight. W. Elderton. Comdr. W. B. Murphy, R.N.

Associate Members.

Lieut. B. Hackforth, R.N.A.S. Major Leveson Scarth. Student .- D. M. Buist W. BARNARD FARADAY, Secretary.

7, Albemarle Street, W.

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German Seaplane in North Sea.

THE Telegraaf published a report on September 11th from Terschelling (one of the Dutch North Sea islands) that

UNAFFILIATED MODEL CLUBS DIARY AND REPORTS.

AND REPORTS.

Club reports of chief work done are published monthly. Secretaries' reports, to be included, must reach the Editor on the last Monday in each month.

Finsbury Park and District (30, Hanley Road, Hornsey Road, N.).

On Aug. 6th the weather was ideal for model flying, but only three members were able to put in an appearance. Mr. Burchell was flying a very neat r.o.g. hollow spar tractor which only weighed 3½ ozs. This machine is fitted with a 2-ft. spar, 30-in. wing and 12-in. tractor screw, driven on four strands of ½ strip rubber. On more than one occasion the model has obtained a duration of 80 secs. timed. It is a remarkable glider, making glides of over 40 secs. Mr. Coleman was also flying a small model which gave some good results. The old veteran machine of Mr. Coleman made one high flight and disappeared, the third model this member has lost. One of the juniors also flew a model with good results. On Sept. 8th and 9th six members were out with models. Mr. Richards had a small scout machine which made some fine flight. Mr. Burchell was flying his "Shyhook" model in his usual good style, and on one occasion gave it up for lost, but after a good search it was found in some bushes nearly 500 yards away. Mr. Coleman had two models, but owing to one of the spars cracking the results were not up to expectations. The smaller of the two made some good flights. There were three juniors out with models all making good practice, Mr. Smith making the best flights. All members will be glad to hear that Mr. Rayner has got his commission in the R.F.C., and the members can either apply to Mr. Burchell, 63, Belmont Street, Kentish Town, or Mr. Coleman, 30, Hanley Road, Hornsey Road.

the British had shot down a German aeroplane the previous evening near there and that the aeroplane fell in the sea

Three aeroplanes and a Zeppelin flew north of Terschelling on the morning of September 11th.



LORD MONTAGU VISITS THE DAVIDSON WORKS.

On Thursday of last week Lord Montagu of Beaulieu paid a visit to the works of the Davidson Aviation Co. in order to address a few words to the workers on the importance of their combined efforts in assisting to further the output of machines demanded in ever-increasing quantities by the Flying Services. His Lordship was supported by Major Alan Burgoyne, M.P. for North Kensington, who also spoke a few well-chosen and emphatic words on the same subject. The Mayor and other local representatives were also present. Lord Montagu was received by Mr. W. Ewart Chester. managing director for the company, Mr. G. H. Cude, general manager, and other members of the staff, and conducted on a round of the works previous to ascending the platform for his address.

Speaking in his usual calm and deliberate way, Lord Montagu said the work of everyone engaged in aeroplane construction was as important to the country almost as the actual fighting in the trenches. If they thought as some did, and as he did himself, that the war was going to be decided largely in the air next spring, or possibly before, they would realise that we must be supreme; that the number of our machines must exceed those of the enemy,

are not going to squeal if we have a few bomb raids on London. All would agree that while we consider it the duty of the Government to protect the capital of the Empire and its citizens, and great factories like those that are turning out aeroplanes and munitions of war, it would be foolish to deplete the front of first-rate squadrons in order to give a sense of false security here. Everyone knew that, as regards day raids, we must have efficient and up-to-date squadrons. That, he was ready to believe, had already been But as regards night raids, it was no good provided for. pretending that the work of keeping them off could be done on this side. Greatly as we deplored the casualties of these night raids, we must realise that we are part of the great national army, that this is a war of nations, and not of select individuals-soldiers-gathered together in the Army. Those in such factories as these, he said, were working as much for the war as any of the soldiers in the front trenches, and they must look upon themselves as "doing their bit" for their country. Lord Montagu went on to speak of what was likely to happen about aviation after the war, and gave the opinion that the air was going to be the great medium of communication not only between distant countries, but between England and



Lord Montagu's visit to the Davidson Aviation Co.'s works. A group of some 700 employees. On the platform are Lord Montagu, Major Alan Burgoyne, M.P., the Mayor Hammersmith. and the Directors

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of the Davidson Company.

and we must be in the position to replace wastage immediately. At the present moment the Germans were putting forward every possible effort to increasing their output. They had turned nearly all of the large number of workers who had hitherto been working on airships or Zeppelins to the construction of aeroplanes. How many thousands of extra workers that meant he did not know, but it was very considerable. He was sure that he need not ask the masters and men, and women too, to co-operate to turn out the maximum output, having regard to quality. therefore, was not the time for bickering and dissention between a firm and its hands or between the hands themselves. He was glad to know that at that establishment the workers were patriotic enough to give up their August Bank Holiday for the sake of the Army and nation. The Germans were doing something beside increasing their output. They were practising very hard at flying by night. They all knew what that was intended to lead to. While the only really effective remedy they have is not on this side, but on the other side. They must try and make their aerodromes impossible within flying distance of this country. They must bomb everything they could bomb from their lines in France. He knew they would agree with him that we

Aircraft Research Work.

At the recent council meeting of the Society of British Aircraft Constructors it was decided to form a Research Association for the Aeronautical Industry on the lines laid down in the Report of the Privy Council Committee for Scientific and Industrial Research.

Some S.B.A.C. Changes.

MR. HAMILTON BARNSLEY (Lanchester), Mr. E. Allen

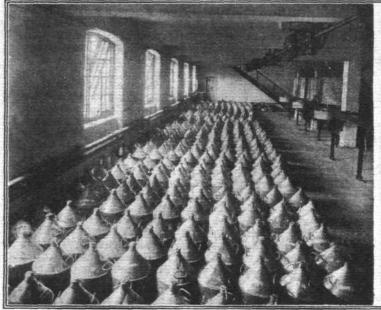
her great outlying Dominions. In the past it had taken from 16 to 17 days to get from London to Bombay, but he could see no reason why the mails should not go out there in three days or even less. A speedy communication of mails would mean that the number of letters would be doubled mails would mean that the number of letters would be doubled and trebled in business operations, he thought it possible that people would pay for letters to be sent by air mail, at a much higher rate than postage, and that instead of spending many pounds in sending cables from London to India, which sometimes took 24 hours to reach their destination, they might have carried a letter containing not 500, but 5,000 words for a shilling. That would enable business to be carried on much more efficiently. They should also, no doubt, have people indulging in joy rides over the United Kingdom. He had no doubt that a great many of the present pilots would find occupation in flying for millionaires present pilots would find occupation in flying for millionaires who had made money out of the war. Perhaps they would spend their money wisely and well in having private aeroplanes in flying from place to place. They must not rest. Germany was a well-organised country; they were working for all they were worth, and improving their engine power and speed. In this country they must do their best to achieve supremacy.

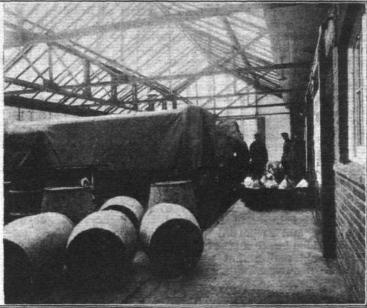
(C. G. Spencer and Sons) and Capt. R. L. Charteris (A.B.C. Motors) have been added to the Council of the Society of British Aircraft Constructors, and Mr. Stuart A. Hirst (Blackburn) elected in place of Mr. Robert Blackburn. Mr. H. White Smith (Bristol) has been unanimously re-elected

Chairman of the Society.

Sir Herbert Austin and Mr.F. Handley Page have been elected to the Committee of Management to fill the vacancies caused by the resignations of Mr. H. V. Roe and Mr. B. Caillard.







Part of the main mixing shop at the Cellon works, showing part of a consignment of Cellon which was manufactured and ready for shipment for overseas use of the B.E.F. forty-eight hours after the order by telephone was given; and, on the right, a portion of the loading bay at the Cellon works, showing the R.F.C. lorries collecting the dope.

SIDE-WINDS.

Some little time back we referred to the way in which the Forward Motor Co. were availing themselves of the relative non-conductivity of copper by fitting fins of this material to their sparking plugs, with a view to keeping them cool. Since they were first introduced, however, the Forward plugs have undergone a considerable amount of



plugs have undergone a considerable amount of modification, and the latest design is seen in our sketch. The two circular lower fins are now of steel, integral with the body of the plug, then there are two circular copper fins, while the nut is split, so providing in practice two further fins. Overheating of the plugs in a motor-car engine is likely to lead to inconvenience, but in the air it becomes a serious danger, and therefore the work of the Forward Co. in doing everything

they can to overcome it should be welcomed. Generally speaking, the plug is made on the lines of the model R, which has proved so efficient for rotary engines. The S model illustrated is intended for use on stationary engines, and is made in two types—either short or long barrel. Manufacturers who are anxious to get the most out of their engines should give these plugs a trial, and the Forward Motor Co., whose address is Summer Row, Birmingham, will be pleased to assist in whatever way they can.

The employees of the Aero Department of Thompson Brother (Bilston), Ltd., held their annual outing on Saturday September 15th, journeying in char-à-bancs to the ancient village of Tong, Shropshire, some 15 miles distant, which is noted for its Castle and Church—the latter dating from the year 1100. After viewing the sights tea was taken at the Bell Inn, and Mr. H. J. Thompson, in a brief speech, dwelt on the progress of the Department and the good feelings that existed between the work people and the firm. Mr. Meredith, the Works Manager, also thanked the work people for their assistance in helping to attain the present state of efficiency and output.

The address of Mr. Ernest Garton, Honorary Secretary of the British Ignition Apparatus Association, is now No. 9, Northumberland Road, Learnington Spa, to which all letters and communications in connection with the Association should be sent.

The Aircraft Supplies Company announce that they have moved their head offices and stores to 125, Long Acre, London, W.C. 2. The telephone call for the new centre of the A.S.C. activity is Gerrard 276, while the telegraphic address is Upcast, Rand, London. The West End offices are still being continued at 166, Piccadilly, W. I. (Gerrard 6040), while the works are at Little James Street, W.C. 1.

FROM Mr. R. P. Grimmer we learn that he has dissolved partnership with Mr. E. Harley Bell, and is no longer connected with the Aircraft Construction Company. He is now pre-

pared to accept any responsible position in the industry where his practical experience would be of value.

The series of clever sketches of leading British machines which have been a feature of Messrs. Brown Brothers, Ltd., have now been reprinted in a small portfolio. If any of our readers would like a set of the "Types of British Aircraft," they should write to Messrs. Brown Brothers, Ltd., at Great Eastern Street, E.C. 2, enclosing two stamps for postage. There is only a limited number of them available, so early application is desirable.

NEW COMPANIES REGISTERED.

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WHITEHEAD AIRCRAFT (1917), LTD., 53-71, Grona Road, Richmond, S.W. Capital £1,000,000, in 300,000 preference and 650,000 ordinary shares of £1 each, and 1,000,000 deferred ordinary shares of 1s. each. Acquiring (inter alia) the business carried on at Richmond, Surrey, by Whitehead Aircraft, Ltd. First directors: J. A. Whitehead (permanent governor and managing director) and R. Whitehead

Aeronautical Patents Published.

Applied for in 1916.

The numbers in brackets are those under which the Specifications will be printed and abridged, &c.

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